# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT



We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr. Governor

Thomas W. Easterly Commissioner

100 North Senate Avenue Indianapolis, Indiana 46204 (317) 232-8603 Toll Free (800) 451-6027 www.idem.IN.gov

TO: Interested Parties / Applicant

DATE: May 13, 2010

RE: Avery Dennison MFD / 089-28616-00407

FROM: Matthew Stuckey, Branch Chief

> Permits Branch Office of Air Quality

# Notice of Decision: Approval – Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-17-3-4 and 326 IAC 2, this permit modification is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-7-3 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, within eighteen (18) days of the mailing of this notice. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2)the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- The date on which the document is deposited with a private carrier, as shown by receipt issued (3)by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- the name and address of the person making the request; (1)
- the interest of the person making the request; (2)
- (3)identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- the issues, with particularity, proposed for considerations at any hearing; and (5)
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.



Pursuant to 326 IAC 2-7-18(d), any person may petition the U.S. EPA to object to the issuance of a Title V operating permit or modification within sixty (60) days of the end of the forty-five (45) day EPA review period. Such an objection must be based only on issues that were raised with reasonable specificity during the public comment period, unless the petitioner demonstrates that it was impractible to raise such issues, or if the grounds for such objection arose after the comment period.

To petition the U.S. EPA to object to the issuance of a Title V operating permit, contact:

U.S. Environmental Protection Agency 401 M Street Washington, D.C. 20406

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.



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Mr. Darin Clark Avery Dennison MFD 270 West Meadow Place. Lowell, IN 46356

May 13,2010

Re: 089-28616-00407

Significant Permit Modification to Part 70 No.: T089-18077-00407

Dear Mr. Darin Clark:

Avery Dennison MFD was issued Part 70 Operating Permit Renewal T089-18077-00407 on December 1, 2008, for a stationary vinyl coating operation. A letter requesting changes to this permit was received on October 27, 2009. Pursuant to the provisions of 326 IAC 2-7-12, a significant permit modification to this permit is hereby approved as described in the attached Technical Support Document.

All other conditions of the permit shall remain unchanged and in effect. Please find attached the entire Part 70 Operating Permit as modified.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Michael S. Brooks, OAQ, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana, 46204-2251, or call at (800) 451-6027, and ask for Michael S. Brooks or extension 4-3533, or dial (317) 234-3533.

Chrystal A. Wagner, Section Chief

Permits Branch Office of Air Quality

Attachments

**MSB** 

CC:

File - Lake County

Lake County Health Department Compliance and Enforcement Branch

U.S. EPA Region V

**NWRO** 

# IDEW

# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue Indianapolis, Indiana 46204 (317) 232-8603 Toll Free (800) 451-6027 www.idem.IN.gov

# PART 70 OPERATING PERMIT RENEWAL OFFICE OF AIR QUALITY

# Avery Dennison MFD 270 West Meadow Place Lowell, Indiana 46356

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. Noncompliance with any provision of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17. This permit also addresses certain new source review requirements for existing equipment and is intended to fulfill the new source review procedures pursuant to 326 IAC 2-3 and 326 IAC 2-7-10.5, applicable to those conditions.

Operation Permit No.: T089-18077-00407					
Issued by/Original Signed By:	Issuance Date: December 1, 2008				
	Expiration Date: December 1, 2013				
Chrystal Wagner, Chief Permits Review Section 1 Office of Air Quality					

Significant Permit Modification: 089-28616-00407

Issured by:

Chrystal Wagner, Section Chief

Permits Branch
Office of Air Quality

Issuance Date: May 13,2010

Expiration Date: December 1, 2013

# **TABLE OF CONTENTS**

SECTION A	SOURCE SUMMARY	5
A.1	General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]	5
A.2	Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326	IAC
	2-7-5(15)]	5
A.3	Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)]	
	[326 IAC 2-7-5(15)]	6
A.4	Part 70 Permit Applicability [326 IAC 2-7-2]	6
SECTION B	GENERAL CONDITIONS	7
B.1	Definitions [326 IAC 2-7-1]	7
B.2	Permit Term [326 IAC 2-7-5(2)] [326 IAC 2-1.1-9.5] [326 IAC 2-7-4(a)(1)(D)] [IC 15-13-	-
	6(a)]	7
B.3	Term of Conditions [326 IAC 2-1.1-9.5]	7
B.4	Enforceability [326 IAC 2-7-7]	7
B.5	Termination of Right to Operate [326 IAC 2-7-10] [326 IAC 2-7-4(a)]	7
B.6	Severability [326 IAC 2-7-5(5)]	7
B.7	Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]	
B.8	Duty to Provide Information [326 IAC 2-7-5(6)(E)]	
B.9	Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)(C)]	
B.10	Annual Compliance Certification [326 IAC 2-7-6(5)]	
B.11	Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6	
D 40	[326 IAC 1-6-3]	9
B.12	Emergency Provisions [326 IAC 2-7-16]	9
B.13 B.14	Permit Shield [326 IAC 2-7-15] [326 IAC 2-7-20] [326 IAC 2-7-12] Prior Permits Superseded [326 IAC 2-1.1-9.5] [326 IAC 2-7-10.5]	
B.14 B.15	Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]	IZ
B.16	Permit Modification, Reopening, Revocation and Reissuance, or Termination [32]	
D.10	IAC 2-7-5(6)(C)] [326 IAC 2-7-8(a)] [326 IAC 2-7-9]	
B.17	Permit Renewal [326 IAC 2-7-3] [326 IAC 2-7-4] [326 IAC 2-7-8(e)]	13
B.18	Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]	14
B.19	Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)]	
	[326 IAC 2-7-12 (b)(2)]	14
B.20	Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]	14
B.21	Source Modification Requirement [326 IAC 2-7-10.5][326 IAC 2-3-2]	
B.22	Inspection and Entry [326 IAC 2-7-6] [IC 13-14-2-2] [IC 13-30-3-1] [IC 13-17-3-2]	16
B.23	Transfer of Ownership or Operational Control [326 IAC 2-7-11]	16
B.24	Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)][326 IAC 2-1.1-7]	17
B.25	Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314]	17
SECTION C	SOURCE OPERATION CONDITIONS	18
	sion Limitations and Standards [326 IAC 2-7-5(1)]	
C.1	Particulate Emission Limitations For Processes with Process Weight Rates Less Than	
C.2	One Hundred (100) Pounds per Hour [326 IAC 6-3-2]	
C.2 C.3	Opacity [326 IAC 5-1]  Open Burning [326 IAC 4-1] [IC 13-17-9]	۱۵
C.4	Incineration [326 IAC 4-1] [326 IAC 9-1-2]	
C.5	Fugitive Dust Emissions [326 IAC 6-4]	18
C.6	Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]	
	ng Requirements [326 IAC 2-7-6(1)]	
C.7	Performance Testing [326 IAC 3-6]	19
Comp	liance Requirements [326 IAC 2-1.1-11]	20
C.8	Compliance Requirements [326 IAC 2-1.1-11]	20

		iance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]	20	
	C.9 C.10	Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]		
	C.11	Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]	21	
	Correc	tive Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]		
	C.12	Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]		
	C.13	Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]		
	C.14	Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]	21	
	C.15	Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] [326 IAC 2-7-6]	3	
	Record	I Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]	22	
	C.16	Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]		
	C.17	General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-7-6]	3]	
	C.18	General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11][326 IAC 2-3	3]	
	Ctuataa			
	C.19	Spheric Ozone Protection	25 25	
SECTIO	ON D.1	FACILITY OPERATION CONDITIONS	26	
	Emissi	on Limitations and Standards [326 IAC 2-7-5(1)]	26	
	D.1.1	Volatile Organic Compounds (VOC) [326 IAC 2-3]	26	
	D.1.2	Volatile Organic Compounds (VOC) Limitations [326 IAC 8-2-5]	26	
	D.1.3	Preventive Maintenance Plan [326 IAC 2-7-5(13)]		
	•	iance Determination Requirements		
	D.1.4	Volatile Organic Compounds (VOC) [326 IAC 8-1-2] [326 IAC 8-1-4]	.27	
	D.1.5 D.1.6	Volatile Organic Compounds (VOC) [326 IAC 8-1-2][40 CFR Part 64]		
	Compli	iance Monitoring Requirements	28	
	D.1.7	Thermal Oxidizer Compliance Monitoring [40 CFR Part 64]	28	
		Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]	28	
	D.1.8	Record Keeping Requirements		
	D.1.9	Reporting Requirements		
SECTIO	_	FACILITY OPERATION CONDITIONS		
		on Limitations and Standards [326 IAC 2-7-5(1)]	29	
	D.2.1	Volatile Organic Compounds (VOC) Limitations [326 IAC 8-3-2]		
	D.2.2 D.2.3	Cold Cleaner Degreasing Operation and Control [326 IAC 8-3-5]		
SECTIO	ON F 1	FACILITY OPERATION CONDITIONS	21	
SECTIO	E.1.1	General Provisions Relating to NESHAP Subpart JJJJ [40 CFR Part 63, Subpart A]		
	E.1.2	Paper and other Web Coating NESHAP [40 CFR Part 63, Subpart JJJJ]		
SECTIO	ON E.2	FACILITY OPERATION CONDITIONS		
	E.2.1	General Provisions Relating to NSPS Subpart RR [40 CFR Part 60, Subpart A]	32	
	E.2.2	Standards of Performance for Pressure Sensitive Tape and Label Materials Coating Operation NSPS [40 CFR Part 60, Subpart RR] [326 IAC 12]		
CERTIF	FICATIO	N		
		OCCURRENCE REPORT		
Part 70 Quarterly Report3				
		· 1		

Significant Permit Modification 089-28616-00407 Modified by Michael S. Brooks

Avery Dennison MFD
Lowell, Indiana
Permit Reviewer: ERG/BS

Page 4 of 38 T089-18077-00407

Page 5 of 38 T089-18077-00407

#### **SECTION A**

#### **SOURCE SUMMARY**

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

#### A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary vinyl coating operation.

Source Address: 270 West Meadow Place, Lowell, Indiana 46356
Mailing Address: 8080 Norton Pkwy., BLDG 22, Mentor, OH 44060

Source Phone Number: (219) 690-4015

SIC Code: 3089 County Location: Lake

Source Location Status: Nonattainment for PM2.5 and 8-hr ozone

Attainment for all other criteria pollutants

Source Status: Part 70 Permit Program

Minor Source under PSD Rules

Major Source under Emission Offset Rules

Major Source under Section 112 of the Clean Air Act

Not 1 of 28 PSD Source Categories

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

- (a) One (1) pressure-sensitive vinyl casting/roll coating line; constructed on July 1, 1980; identified as L-1; with a maximum capacity of 24,750 square feet per hour; using a 20 MMBtu/hr natural gas-fired thermal oxidizer, identified as C-1, for VOC control; exhausting to stack S-1, utilizing a 6.9 MMBtu/hr natural gas fired thermal oxidizer used for backup VOC control when C-1 is offline, exhausting to stack TOS-1. Under 40 CFR Part 63, Subpart JJJJ, L-1 is considered an existing web coating line.
- (b) One (1) pressure-sensitive vinyl casting/roll coating line, constructed on December 1, 1984; and one (1) surface coating head (CH-1), constructed in 2001; identified together as L-2; with a maximum capacity of 23,063 square feet per hour; using a 20 MMBtu/hr natural gas-fired thermal oxidizer, identified as C-1, for VOC control; exhausting to stack S-1, utilizing a 9.8 MMBtu/hr natural gas fired thermal oxidizer used for backup VOC control when C-1 is offline, exhausting to stack TOS-2. Under 40 CFR Part 63, Subpart JJJJ, L-2 is considered an existing web coating line. Under 40 CFR Part 60, Subpart RR, L-2 is considered an affected source.
- (c) One (1) pressure-sensitive vinyl casting and adhesive rollcoating line; constructed on June 1, 1988; identified as L-3; with a maximum capacity of 30,750 square feet per hour; using a 20 MMBtu/hr natural gas-fired thermal oxidizer, identified as C-1, for VOC control (except when using an emulsion coating); exhausting to stack S-1. Under 40 CFR Part 63, Subpart JJJJ, L-3 is considered an existing web coating line. Under 40 CFR Part 60, Subpart RR, L-3 is considered an affected source.

# A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

- (a) VOC and HAP storage tanks with capacities less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons; [326 IAC 8-9-6]
- (b) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6; [326 IAC 8-3-2][326 IAC 8-3-5]
- (c) Paved and unpaved roads and parking lots with public access. [326 IAC 6-4]

#### A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 Applicability).

Page 7 of 38 T089-18077-00407

#### **SECTION B**

#### **GENERAL CONDITIONS**

#### B.1 Definitions [326 IAC 2-7-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

## B.2 Permit Term [326 IAC 2-7-5(2)] [326 IAC 2-1.1-9.5] [326 IAC 2-7-4(a)(1)(D)] [IC 15-13-6(a)]

- (a) This permit, T089-18077-00407, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

# B.3 Term of Conditions [326 IAC 2-1.1-9.5]

Notwithstanding the permit term of a permit to construct, a permit to operate, or a permit modification, any condition established in a permit issued pursuant to a permitting program approved in the state implementation plan shall remain in effect until:

- (1) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or
- (2) the emission unit to which the condition pertains permanently ceases operation.

#### B.4 Enforceability [326 IAC 2-7-7]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

#### B.5 Termination of Right to Operate [326 IAC 2-7-10] [326 IAC 2-7-4(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).

#### B.6 Severability [326 IAC 2-7-5(5)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

#### B.7 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]

This permit does not convey any property rights of any sort or any exclusive privilege.

# B.8 Duty to Provide Information [326 IAC 2-7-5(6)(E)]

(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee require certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.

Page 8 of 38 T089-18077-00407

(b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

# B.9 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)(C)]

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) A responsible official is defined at 326 IAC 2-7-1(34).

#### B.10 Annual Compliance Certification [326 IAC 2-7-6(5)]

(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than April 15th of each year to:

Indiana Department of Environmental Management Compliance and Enforcement Branch, Office of Air Quality 100 North Senate Avenue MC 61-53 IGCN 1003 Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J) 77 West Jackson Boulevard Chicago, Illinois 60604-3590

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
  - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
  - (2) The compliance status;
  - (3) Whether compliance was continuous or intermittent:
  - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and

(5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

# B.11 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) including the following information on each facility:
  - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMP does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

# B.12 Emergency Provisions [326 IAC 2-7-16]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
  - (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
  - (2) The permitted facility was at the time being properly operated;
  - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
  - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ and Northwest Regional Office within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Page 10 of 38 T089-18077-00407

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality,

Compliance and Enforcement Branch), or

Telephone Number: 317-233-5674 (ask for Compliance and Enforcement

Branch)

Facsimile Number: 317-233-5967

Northwest Regional Office Phone: (219) 757-0265

Phone: (888) 209-8892 (toll free within Indiana)

Fax: (219) 757-0267

(5)For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management Compliance and Enforcement Branch, Office of Air Quality 100 North Senate Avenue MC 61-53 IGCN 1003 Indianapolis, Indiana 46204-2251

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (6)The Permittee immediately took all reasonable steps to correct the emergency.
- In any enforcement proceeding, the Permittee seeking to establish the occurrence of an (c) emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(9) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.

- (g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
- (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

## B.13 Permit Shield [326 IAC 2-7-15] [326 IAC 2-7-20] [326 IAC 2-7-12]

(a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed in compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.

- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.
- (c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.
- (d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:
  - (1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;
  - (2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;
  - (3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and
  - (4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.
- (e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).

- (f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ has issued the modifications. [326 IAC 2-7-12(c)(7)]
- (g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ has issued the modification. [326 IAC 2-7-12(b)(8)]

#### B.14 Prior Permits Superseded [326 IAC 2-1.1-9.5] [326 IAC 2-7-10.5]

- (a) All terms and conditions of permits established prior to T089-18077-00407 and issued pursuant to permitting programs approved into the state implementation plan have been either:
  - (1) incorporated as originally stated,
  - (2) revised under 326 IAC 2-7-10.5, or
  - (3) deleted under 326 IAC 2-7-10.5.
- (b) Provided that all terms and conditions are accurately reflected in this combined permit, all previous registrations and permits are superseded by this Part 70 operating permit.

## B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

(a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management Compliance and Enforcement Branch, Office of Air Quality 100 North Senate Avenue MC 61-53 IGCN 1003 Indianapolis, Indiana 46204-2251

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

# B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)] [326 IAC 2-7-8(a)] [326 IAC 2-7-9]

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:

- (1) That this permit contains a material mistake.
- (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
- (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]
- (c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

#### B.17 Permit Renewal [326 IAC 2-7-3] [326 IAC 2-7-4] [326 IAC 2-7-8(e)]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management Permit Administration and Support Section, Office of Air Quality 100 North Senate Avenue MC 61-53 IGCN 1003 Indianapolis, Indiana 46204-2251

- (b) A timely renewal application is one that is:
  - (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
  - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) If IDEM, OAQ, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.
- (d) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the

Page 14 of 38 T089-18077-00407

deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.

#### B.18 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management Permit Administration and Support Section, Office of Air Quality 100 North Senate Avenue MC 61-53 IGCN 1003 Indianapolis, Indiana 46204-2251

Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]
- (d) No permit amendment or modification is required for the addition, operation or removal of a nonroad engine, as defined in 40 CFR 89.2.

# B.19 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)] [326 IAC 2-7-12 (b)(2)]

- (a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.
- (b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

#### B.20 Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b), (c), or (e), without a prior permit revision, if each of the following conditions is met:
  - (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
  - (2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;
  - (3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions):
  - (4) The Permittee notifies the:

Indiana Department of Environmental Management Permit Administration and Support Section, Office of Air Quality 100 North Senate Avenue MC 61-53 IGCN 1003 Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J) 77 West Jackson Boulevard Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

(5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-7-20(b), (c), or (e) and makes such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-7-20(b)(1), (c)(1), and (e)(2).

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:
  - (1) A brief description of the change within the source;
  - (2) The date on which the change will occur;
  - (3) Any change in emissions; and
  - (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) Emission Trades [326 IAC 2-7-20(c)]
  The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).
- (d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
  The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.

Page 16 of 38 T089-18077-00407

(e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

#### B.21 Source Modification Requirement [326 IAC 2-7-10.5][326 IAC 2-3-2]

- (a) A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-7-10.5.
- (b) Any modification at an existing major source is governed by the requirements of 326 IAC 2-3-2.

## B.22 Inspection and Entry [326 IAC 2-7-6] [IC 13-14-2-2] [IC 13-30-3-1] [IC 13-17-3-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy any records that must be kept under the conditions of this permit;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

#### B.23 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management Permit Administration and Support Section, Office of Air Quality 100 North Senate Avenue MC 61-53 IGCN 1003 Indianapolis, Indiana 46204-2251

The application which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Significant Permit Modification 089-28616-00407 Modified by Michael S. Brooks Page 17 of 38

T089-18077-00407

Avery Dennison MFD Lowell, Indiana Permit Reviewer: ERG/BS

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

# B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)][326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

#### B.25 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314]

Notwithstanding the conditions of this permit that state specific methods that may be used to demonstrate compliance with, or a violation of, applicable requirements, any person (including the Permittee) may also use other credible evidence to demonstrate compliance with, or a violation of, any term or condition of this permit.

Page 18 of 38

T089-18077-00407

Avery Dennison MFD Permit Reviewer: ERG/BS

Lowell, Indiana

#### **SECTION C SOURCE OPERATION CONDITIONS**

#### **Entire Source**

# Emission Limitations and Standards [326 IAC 2-7-5(1)]

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

#### Opacity [326 IAC 5-1] C.2

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- Opacity shall not exceed an average of twenty percent (20%) in any one (1) six (6) minute (a) averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

#### C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1, 326 IAC 4-1-3(a)(2)(A) and (B) are not federally enforceable.

#### C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2.

#### Fugitive Dust Emissions [326 IAC 6-4] C.5

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

#### Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M] C.6

- Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
  - When the amount of affected asbestos containing material increases or (1) decreases by at least twenty percent (20%); or

- (2) If there is a change in the following:
  - (A) Asbestos removal or demolition start date;
  - (B) Removal or demolition contractor; or
  - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management Compliance and Enforcement Branch, Office of Air Quality 100 North Senate Avenue MC 61-53 IGCN 1003 Indianapolis, Indiana 46204-2251

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (e) Procedures for Asbestos Emission Control
  The Permittee shall comply with the applicable emission control procedures in 326 IAC
  14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are
  applicable for any removal or disturbance of RACM greater than three (3) linear feet on
  pipes or three (3) square feet on any other facility components or a total of at least 0.75
  cubic feet on all facility components.
- (f) Demolition and renovation
  The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) Indiana Accredited Asbestos Inspector
  The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator,
  prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to
  thoroughly inspect the affected portion of the facility for the presence of asbestos. The
  requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable.

# Testing Requirements [326 IAC 2-7-6(1)]

## C.7 Performance Testing [326 IAC 3-6]

(a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Page 20 of 38 T089-18077-00407

Indiana Department of Environmental Management Compliance and Enforcement Branch, Office of Air Quality 100 North Senate Avenue MC 61-53 IGCN 1003 Indianapolis, Indiana 46204-2251

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

#### Compliance Requirements [326 IAC 2-1.1-11]

#### C.8 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

# Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]

#### C.9 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management Compliance and Enforcement Branch, Office of Air Quality 100 North Senate Avenue MC 61-53 IGCN 1003 Indianapolis, Indiana 46204-2251

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units or emission units added through a source modification shall be implemented when operation begins.

Page 21 of 38 T089-18077-00407

## C.10 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

#### C.11 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

- (a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.
- (b) The Permittee may request that the IDEM, OAQ approve the use an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

#### Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

#### C.12 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

- (a) The Permittee prepared and submitted written emergency reduction plans (ERPs) consistent with safe operating procedures on December 11, 1996.
- (b) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level.

# C.13 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]

If a regulated substance, as defined in 40 CFR 68, is present at a source in more than a threshold quantity, the Permittee must comply with the applicable requirements of 40 CFR 68.

# C.14 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]

- (a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:
  - (1) initial inspection and evaluation;
  - recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or
  - (3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:

- (1) monitoring results;
- (2) review of operation and maintenance procedures and records;
- (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall maintain the following records:
  - (1) monitoring data;
  - (2) monitor performance data, if applicable; and
  - (3) corrective actions taken.
- C.15 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] [326 IAC 2-7-6]
  - (a) When the results of a stack test performed in conformance with Section C Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
  - (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
  - (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

## Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

- C.16 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]
  - (a) In accordance with the compliance schedule specified in 326 IAC 2-6-3(b)(1), the Permittee shall submit by July 1 an emission statement covering the previous calendar year as follows:
    - (1) starting in 2007 and every three (3) years thereafter, and
    - (2) any year not already required under (1) if the source emits volatile organic compounds or oxides of nitrogen into the ambient air at levels equal to or greater than twenty-five (25) tons during the previous calendar year.
  - (b) The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:
    - (1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);

Page 23 of 38 T089-18077-00407

(2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1 (32) ("Regulated pollutant, which is used only for purposes of Section 19 of this rule") from the source, for purpose of fee assessment.

The statement must be submitted to:

Indiana Department of Environmental Management Technical Support and Modeling Section, Office of Air Quality 100 North Senate Avenue MC 61-50 IGCN 1003 Indianapolis, Indiana 46204-2251

The emission statement does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) The emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

#### C.17 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-3]

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.
- (c) If there is a "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(II)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:
  - (1) Before beginning actual construction of "project" (as defined in 326 IAC 2-3-1(II)) document and maintain the following records:
    - (A) A description of the project;
    - (B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project;
    - (C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:
      - (i) Baseline actual emissions;
      - (ii) Projected actual emissions;

- (iii) Amount of emissions excluded under section 326 IAC 2-3-1(mm)(2)(A)(3); and
- (iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.
- (2) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any emissions unit identified in (1)(B) above; and
- (3) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity of or the potential to emit that regulated NSR pollutant at the emissions unit.

#### C.18 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11][326 IAC 2-3]

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management Compliance and Enforcement Branch, Office of Air Quality 100 North Senate Avenue MC 61-53 IGCN 1003 Indianapolis, Indiana 46204-2251

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (e) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.
- (f) If the Permittee is required to comply with the recordkeeping provisions of (c) in Section C
   General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-3-1 (II)), and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:
  - (1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C General Record

Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-3-1 (gg), for that regulated NSR pollutant, and

- (2) The emissions differ from the preconstruction projection as documented and maintained under Section C General Record Keeping Requirements (c)(1)(C)(ii).
- (g) The report shall be submitted within sixty (60) days after the end of the year and contain the following:
  - (1) The name, address, and telephone number of the major stationary source.
  - (2) The annual emissions calculated in accordance with (c)(2) and (3) in Section C General Record Keeping Requirements.
  - (3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-3-2(c)(3).
  - (4) Any other information that the Permittee deems fit to include in this report,

Reports required in this part shall be submitted to:

Indiana Department of Environmental Management Compliance and Enforcement Branch, Office of Air Quality 100 North Senate Avenue MC 61-53 IGCN 1003 Indianapolis, Indiana 46204-2251

(h) The Permittee shall make the information required to be documented and maintained in accordance with (c) in Section C - General Record Keeping Requirements available for review upon a request for inspection by IDEM, OAQ. The general public may request this information from the IDEM, OAQ under 326 IAC 17.1.

#### **Stratospheric Ozone Protection**

#### C.19 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- (b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

Page 26 of 38 T089-18077-00407

#### **SECTION D.1**

#### **FACILITY OPERATION CONDITIONS**

#### Facility Description [326 IAC 2-7-5(15)]: Surface Coating

- (a) One (1) pressure-sensitive vinyl casting/rollcoating line; constructed on July 1, 1980; identified as L-1; with a maximum capacity of 24,750 square feet per hour; using a 20 MMBtu/hr natural gasfired thermal oxidizer, identified as C-1, for VOC control; exhausting to stack S-1, utilizing a 6.9 MMBtu/hr natural gas fired thermal oxidizer used for backup VOC control when C-1 is offline, exhausting to stack TOS-1. Under 40 CFR Part 63, Subpart JJJJ, L-1 is considered an existing web coating line.
- (b) One (1) pressure-sensitive vinyl casting/rollcoating line, constructed on December 1, 1984; and one (1) surface coating head (CH-1), constructed in 2001; identified together as L-2; with a maximum capacity of 23,063 square feet per hour; using a 20 MMBtu/hr natural gas-fired thermal oxidizer, identified as C-1, for VOC control; exhausting to stack S-1, utilizing a 9.8 MMBtu/hr natural gas fired thermal oxidizer used for backup VOC control when C-1 is offline, exhausting to stack TOS-2. Under 40 CFR Part 63, Subpart JJJJ, L-2 is considered an existing web coating line. Under 40 CFR Part 60, Subpart RR, L-2 is considered an affected source.
- (c) One (1) pressure-sensitive vinyl adhesive rollcoating line; constructed on June 1, 1988; identified as L-3; with a maximum capacity of 30,750 square feet per hour; using a 20 MMBtu/hr natural gas-fired thermal oxidizer, identified as C-1, for VOC control (except when using an emulsion coating); exhausting to stack S-1. Under 40 CFR Part 63, Subpart JJJJ, L-3 is considered an existing web coating line. Under 40 CFR Part 60, Subpart RR, L-3 is considered an affected source.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

# Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.1.1 Volatile Organic Compounds (VOC) [326 IAC 2-3]

Pursuant to MSM 089-12713-00407, issued December 14, 2000, and as revised by this Part 70 Renewal permit:

- (a) The VOC input to surface coating head CH-1, as part of L-2 shall not exceed five hundred (500) tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (b) Thermal oxidizer C-1 or the 9.8MMBtu/hr backup thermal oxidizer shall control VOC emissions from CH-1 and achieve a minimum overall efficiency of ninety-eight percent (98%).

Compliance with these limits will limit the VOC emissions from CH-1 to less than 10 tons per twelve (12) consecutive month period and render the requirements of 326 IAC 2-3 (Emission Offset) not applicable to CH-1.

#### D.1.2 Volatile Organic Compounds (VOC) Limitations [326 IAC 8-2-5]

- (a) Pursuant to 326 IAC 8-2-5, the Permittee shall not allow the discharge into the atmosphere VOC in excess of 2.9 pounds of VOC per gallon of coating, excluding water, as delivered to the applicators of L-1, L-2 and L-3.
- (b) When operating a thermal oxidizer to achieve the limit for 326 IAC 8-2-5, the Permittee shall comply with the requirements of 40 CFR 63.3370(e).

(c) Pursuant to 326 IAC 8-1-2(b), VOC emissions from L-1, L-2 and L-3 shall be limited to no greater than the equivalent emissions, expressed as pounds of VOC per gallon of coating solids

This equivalency was determined by the following equation:

$$E = L/(1 - (L/D))$$

#### Where:

- L = Applicable emission limit from 326 IAC 8 in pounds of VOC per gallon of coating:
- D = Density of VOC in coating in pounds per gallon of VOC;
- E = Equivalent emission limit in pounds of VOC per gallon of coating solids as applied.

Actual solvent density shall be used to determine compliance of the surface coating operation using the compliance methods in 326 IAC 8-1-2(a).

(d) The equivalent pounds of VOC per gallon of coating solids as applied (E) shall be limited to less than 203.4, when L is equal to 2.9, D is equal to 10.1 and the overall control efficiency is equal to 98%.

#### D.1.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and their control devices.

#### **Compliance Determination Requirements**

#### D.1.4 Volatile Organic Compounds (VOC) [326 IAC 8-1-2] [326 IAC 8-1-4]

Compliance with the VOC content limit contained in Condition D.1.2(a) shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the manufacturer the copies of the "as supplied" and "as applied" VOC data sheets. IDEM, OAQ reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

#### D.1.5 Volatile Organic Compounds (VOC) [326 IAC 8-1-2][40 CFR Part 64]

Pursuant to 326 IAC 8-1-2(a) and in order to achieve compliance with Conditions D.1.1 and D.1.2, the Permittee shall operate a thermal oxidizer whenever:

- (a) L-1 is in operation and using 326 IAC 8-2-5 noncompliant coatings;
- (b) L-2 is in operation and using 326 IAC 8-2-5 noncompliant coatings; or
- (c) L-3 is in operation and using 326 IAC 8-2-5 noncompliant coatings.

#### D.1.6 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

- (a) The Permittee shall conduct performance tests to determine the VOC capture and destruction efficiencies of thermal oxidizer C-1. This test shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted using methods approved by the Commissioner and in accordance with Section C Performance Testing.
- (b) When the backup thermal oxidizers for rollcoating lines L-1 and L-2 operate for 500 hours per twelve (12) consecutive month period, respectively, the Permittee shall, in no later than ninety (90) days, conduct performance tests to determine the VOC capture and destruction efficiencies of the backup thermal oxidizers for rollcoating lines L-1 and L-2,

respectively. Five (5) years from the date of the most recent valid compliance demonstration additional testing shall be performed when the backup thermal oxidizers for rollcoating lines L-1 and L-2 operate for 500 hours per twelve (12) consecutive month period, repectively. Testing shall be conducted using methods approved by the Commissioner and in accordance with Section C - Performance Testing.

# **Compliance Monitoring Requirements**

#### D.1.7 Thermal Oxidizer Compliance Monitoring [40 CFR Part 64]

The Permittee shall comply with the requirements of 40 CFR 63.3350(a), (b), (e) and (f) when operating a thermal oxidizer used to control emissions from L-1, L-2 and L-3.

#### Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

#### D.1.8 Record Keeping Requirements

- (a) To document compliance with Conditions D.1.1 and D.1.2(b), the Permittee shall maintain records in accordance with (1) and (2) below for L-1, L-2 and L-3. Records maintained for (1) and (2) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC content limit established in Condition D.1.2. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.
  - (1) The VOC content of each coating material and solvent used less water.
  - (2) The amount of coating material and solvent used on monthly basis.
    - (A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.
    - (B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.
- (b) To document compliance with Condition D.1.6(b) the Permittee shall maintain records of the hours of operation of each of the backup thermal oxidizers for rollcoating lines L-1 and L-2.
- (c) To document compliance with Conditions D.1.1 and D.1.6, the Permittee shall maintain records of the test results.
- (d) All records shall be maintained in accordance with Section C General Record Keeping Requirements, of this permit.

#### D.1.9 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the responsible official as defined by 326 IAC 2-7-1(34).

Page 29 of 38 T089-18077-00407

#### **SECTION D.2**

#### **FACILITY OPERATION CONDITIONS**

## Facility Description [326 IAC 2-7-5(15)]: Specifically Regulated Insignificant Activities

- (a) VOC and HAP storage tanks with capacities less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons; [326 IAC 8-9-6]
- (b) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6; [326 IAC 8-3-2][326 IAC 8-3-5]

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

# Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.2.1 Volatile Organic Compounds (VOC) Limitations [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2, the Permittee shall do the following with respect to the insignificant degreasing operations:

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the operation requirements;
- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

#### D.2.2 Cold Cleaner Degreasing Operation and Control [326 IAC 8-3-5]

Pursuant to 326 IAC 8-3-5(a), for cold cleaner degreaser operations without remote solvent reservoirs existing as of July 1, 1990, located in Clark, Elkhart, Floyd, Lake, Marion, Porter or St. Joseph Counties, the Permittee shall ensure that the following requirements are met:

- (a) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
  - (1) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));
  - (2) The solvent is agitated; or
  - (3) The solvent is heated.
- (b) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.

- (c) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
- (d) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
- (e) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):
  - (1) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
  - (2) A water cover when solvent is used is insoluble in, and heavier than, water.
  - (3) Other systems of demonstrated equivalent control such as a refrigerated chiller of carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.

## D.2.3 Volatile Organic Liquid Storage Vessels [326 IAC 8-9-6(a) and (b)]

Pursuant to 326 IAC 8-9-6(a) and (b), the Permittee shall:

- (a) Keep all records required below for the life of each vessel.
- (b) Maintain a record and submit to the department a report containing the following information for each vessel:
  - (1) The vessel identification number.
  - (2) The vessel dimensions.
  - (3) The vessel capacity.
  - (4) A description of the emission control equipment for each vessel described in section 4(a) and 4(b) of this rule, or a schedule for installation of emission control equipment on vessels described in section 4(a) or 4(b) of this rule with a certification that the emission control equipment meets the applicable standards.

Page 31 of 38 T089-18077-00407

#### **SECTION E.1**

#### **FACILITY OPERATION CONDITIONS**

# Facility Description [326 IAC 2-7-5(15)]

- (a) One (1) pressure-sensitive vinyl casting/rollcoating line; constructed on July 1, 1980; identified as L-1; with a maximum capacity of 24,750 square feet per hour; using a 20 MMBtu/hr natural gasfired thermal oxidizer, identified as C-1, for VOC control; exhausting to stack S-1, utilizing a 6.9 MMBtu/hr natural gas fired thermal oxidizer used for backup VOC control, exhausting to stack TOS-1. Under 40 CFR Part 63, Subpart JJJJ, L-1 is considered an existing web coating line.
- (b) One (1) pressure-sensitive vinyl casting/rollcoating line, constructed on December 1, 1984; and one (1) surface coating head (CH-1), constructed in 2001; identified together as L-2; with a maximum capacity of 23,063 square feet per hour; using a 20 MMBtu/hr natural gas-fired thermal oxidizer, identified as C-1, for VOC control; exhausting to stack S-1, utilizing a 9.8 MMBtu/hr natural gas fired thermal oxidizer used for backup VOC control, exhausting to stack TOS-2. Under 40 CFR Part 63, Subpart JJJJ, L-2 is considered an existing web coating line. Under 40 CFR Part 60, Subpart RR, L-2 is considered an affected source.
- (c) One (1) pressure-sensitive vinyl adhesive rollcoating line; constructed on June 1, 1988; identified as L-3; with a maximum capacity of 30,750 square feet per hour; using a 20 MMBtu/hr natural gas-fired thermal oxidizer, identified as C-1, for VOC control (except when using an emulsion coating); exhausting to stack S-1. Under 40 CFR Part 63, Subpart JJJJ, L-3 is considered an existing web coating line. Under 40 CFR Part 60, Subpart RR, L-3 is considered an affected source.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

# E.1.1 General Provisions Relating to NESHAP Subpart JJJJ [40 CFR Part 63, Subpart A]

Pursuant to 40 CFR 63.3340, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-1, as specified in Table 2 of 40 CFR Part 63, Subpart JJJJ in accordance with schedule in 40 CFR 63 Subpart JJJJ.

### E.1.2 Paper and other Web Coating NESHAP [40 CFR Part 63, Subpart JJJJ]

The Permittee which engages in paper and other web coating shall comply with the following provisions of 40 CFR Part 63, Subpart JJJJ (included as Attachment A of this permit).

- (1) 40 CFR 63.3280;
- (2) 40 CFR 63.3290;
- (3) 40 CFR 63.3300;
- (4) 40 CFR 63.3310;
- (5) 40 CFR 63.3320(a), (b)(1), (2) and (3) and (c);
- (6) 40 CFR 63.3321;
- (7) 40 CFR 63.3330(a);
- (8) 40 CFR 63.3340;
- (9) 40 CFR 63.3350;
- (10) 40 CFR 63.3360(a), (c), (d), and (e);
- (11) 40 CFR 63.3370(a), (b) and (c)(1) through (5);
- (12) 40 CFR 63.3400(a), (b)(1), c(1)(i) through (v), (2)(i) through (v) and (e);
- (13) 40 CFR 63.3410(a)(1)(iii), (iv) and (vi);
- (14) Table 1; and
- (15) Table 2.

Page 32 of 38 T089-18077-00407

#### **SECTION E.2**

#### **FACILITY OPERATION CONDITIONS**

# Facility Description [326 IAC 2-7-5(15)]

- (a) One (1) pressure-sensitive vinyl casting/rollcoating line; constructed on July 1, 1980; identified as L-1; with a maximum capacity of 24,750 square feet per hour; using a 20 MMBtu/hr natural gasfired thermal oxidizer, identified as C-1, for VOC control; exhausting to stack S-1, utilizing a 6.9 MMBtu/hr natural gas fired thermal oxidizer used for backup VOC control, exhausting to stack TOS-1. Under 40 CFR Part 63, Subpart JJJJ, L-1 is considered an existing web coating line.
- (b) One (1) pressure-sensitive vinyl casting/rollcoating line, constructed on December 1, 1984; and one (1) surface coating head (CH-1), constructed in 2001; identified together as L-2; with a maximum capacity of 23,063 square feet per hour; using a 20 MMBtu/hr natural gas-fired thermal oxidizer, identified as C-1, for VOC control; exhausting to stack S-1, utilizing a 9.8 MMBtu/hr natural gas fired thermal oxidizer used for backup VOC control, exhausting to stack TOS-2. Under 40 CFR Part 63, Subpart JJJJ, L-2 is considered an existing web coating line. Under 40 CFR Part 60, Subpart RR, L-2 is considered an affected source.
- (c) One (1) pressure-sensitive vinyl adhesive rollcoating line; constructed on June 1, 1988; identified as L-3; with a maximum capacity of 30,750 square feet per hour; using a 20 MMBtu/hr natural gas-fired thermal oxidizer, identified as C-1, for VOC control (except when using an emulsion coating); exhausting to stack S-1. Under 40 CFR Part 63, Subpart JJJJ, L-3 is considered an existing web coating line. Under 40 CFR Part 60, Subpart RR, L-3 is considered an affected source.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

## E.2.1 General Provisions Relating to NSPS Subpart RR [40 CFR Part 60, Subpart A]

Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12, except as otherwise specified in 40 CFR Part 60, Subpart RR.

E.2.2 Standards of Performance for Pressure Sensitive Tape and Label Materials Coating Operation NSPS [40 CFR Part 60, Subpart RR] [326 IAC 12]

The Permittee which engages in pressure sensitive tape and label materials coating shall comply with the following provisions of 40 CFR Part 60, Subpart RR, (included as Attachment B of this permit).

- (1) 40 CFR 60.440;
- (2) 40 CFR 60.441;
- (3) 40 CFR 60.442;
- (4) 40 CFR 60.443;
- (5) 40 CFR 60.444;
- (6) 40 CFR 60.445;
- (7) 40 CFR 60.446; and
- (8) 40 CFR 60.447.

Page 33 of 38 T089-18077-00407

# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT **OFFICE OF AIR QUALITY**

# **PART 70 OPERATING PERMIT CERTIFICATION**

Source Name: Avery Dennison MFD

270 West Meadow Place, Lowell, Indiana 46356 Source Address: Mailing Address:
Part 70 Permit No.: 250 Chester Street, Painesville, Ohio 44077

T089-18077-00407

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.		
Please check what document is being certified:		
☐ Annual Compliance Certification Letter		
☐ Test Result (specify)		
☐ Report (specify)		
☐ Notification (specify)		
☐ Affidavit (specify)		
☐ Other (specify)		
I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.		
Signature:		
Printed Name:		
Title/Position:		
Phone:		
Date:		

Significant Permit Modification 089-28616-00407 Modified by Michael S. Brooks

Avery Dennison MFD Lowell, Indiana Permit Reviewer: ERG/BS Page 34 of 38 T089-18077-00407

# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY

#### **COMPLIANCE AND ENFORCEMENT BRANCH**

100 North Senate Avenue MC 61-53 IGCN 1003 Indianapolis, Indiana 46204-2251 Phone: 317-233-5674 Fax: 317-233-5967

## PART 70 OPERATING PERMIT EMERGENCY OCCURRENCE REPORT

Source Name: Avery Dennison MFD

Source Address: 270 West Meadow Place, Lowell, Indiana 46356 Mailing Address: 250 Chester Street, Painesville, Ohio 44077

Part 70 Permit No.: T089-18077-00407

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Page 1 of 2

╝	i nis is an e	emergency as defined in 326 IAC 2-7-1(12)
	•	The Permittee must notify the Office of Air Quality (OAQ), within four (4) business
		hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and

• The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
T domey Equipment Operation.
Control Equipment:
Control Equipment.
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:
<u> </u>

#### Significant Permit Modification 089-28616-00407 Modified by Michael S. Brooks

Page 35 of 38 T089-18077-00407

If any of the following are not applicable, mark N/A	Page 2 of 2
Date/Time Emergency started:	
Date/Time Emergency was corrected:	
Was the facility being properly operated at the time of the emergency? Y N	
Type of Pollutants Emitted: TSP, PM-10, SO <sub>2</sub> , VOC, NO <sub>X</sub> , CO, Pb, other:	
Estimated amount of pollutant(s) emitted during emergency:	
Describe the steps taken to mitigate the problem:	
Describe the corrective actions/response steps taken:	
Describe the measures taken to minimize emissions:	
If applicable, describe the reasons why continued operation of the facilities are necessal imminent injury to persons, severe damage to equipment, substantial loss of capital involved of product or raw materials of substantial economic value:	
Form Completed by:	
Title / Position:	
Date:	
Phone:	

A certification is not required for this report.

Page 36 of 38 T089-18077-00407

# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE AND ENFORCEMENT BRANCH

#### Part 70 Quarterly Report

Source Name: Avery Dennison MFD

Source Address: 270 West Meadow Place, Lowell, Indiana 46356 Mailing Address: 250 Chester Street, Painesville, Ohio 44077

Part 70 Permit No.: T089-18077-00407

Facility: CH-1 Parameter: VOC Input

Limit: The VOC input to CH-1 shall not exceed five hundred (500) tons per twelve (12)

consecutive month period with compliance determined at the end of each month.

QUARTER: YEAR:

Month	VOC input to CH-1	VOC input to CH-1	VOC input to CH-1
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

☐ No deviation occurred in this quarter.
Deviation/s occurred in this quarter. Deviation has been reported on:
Submitted by: Title / Position: Signature: Date: Phone:
FIIOHE.

Attach a signed certification to complete this report.

Page 37 of 38 T089-18077-00407

# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE AND ENFORCEMENT BRANCH

## PART 70 OPERATING PERMIT QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Avery Dennison MFD Source Address: 270 West Meadow Place, Lowell, Indiana 46356 Mailing Address: 250 Chester Street, Painesville, Ohio 44077 Part 70 Permit No.: T089-18077-00407			
Мо	onths: to	Year:	
I		Page 1 of 2	
This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".			
☐ NO DEVIATIONS	OCCURRED THIS REPORT	ING PERIOD.	
☐ THE FOLLOWIN	G DEVIATIONS OCCURRED	THIS REPORTING PERIOD	
Permit Requiremen	t (specify permit condition #)		
Date of Deviation: Duration of Deviation:			
Number of Deviations:			
Probable Cause of	Deviation:		
Response Steps Taken:			
Permit Requirement (specify permit condition #)			
Date of Deviation: Duration of Deviation:			
Number of Deviation	ons:		
Probable Cause of	Deviation:		
Response Steps Taken:			

#### Significant Permit Modification 089-28616-00407 Modified by Michael S. Brooks

Page 38 of 38 T089-18077-00407

Page 2 of 2

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Permit Requirement (specify permit condition #)				
Date of Deviation: Duration of Deviation:				
Number of Deviations:				
Probable Cause of Deviation:				
Response Steps Taken:				
Permit Requirement (specify permit condition #)				
Date of Deviation:	Duration of Deviation:			
Number of Deviations:				
Probable Cause of Deviation:				
Response Steps Taken:				
Permit Requirement (specify permit condition #)				
Date of Deviation: Duration of Deviation:				
Number of Deviations:				
Probable Cause of Deviation:				
Response Steps Taken:				
Form Completed By:				
Title/Position:				
Date:				

Attach a signed certification to complete this report.

Phone:

# PART 70 OPERATING PERMIT RENEWAL OFFICE OF AIR QUALITY

Avery Dennison MFD 270 West Meadow Place Lowell, Indiana 46356

#### Attachment A

**Title 40: Protection of Environment** 

PART 63—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES

Subpart JJJJ—National Emission Standards for Hazardous Air Pollutants: Paper and Other Web Coating

**Significant Permit Modification** 

089-28616-00407

Avery Dennison MFD
Page 2 of 43
Lowell, Indiana
SPM 089-28616-00407

Permit Reviewer: Michael S. Brooks

#### **Title 40: Protection of Environment**

### PART 63—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES

### Subpart JJJJ—National Emission Standards for Hazardous Air Pollutants: Paper and Other Web Coating

Source: 67 FR 72341, Dec. 4, 2002, unless otherwise noted.

#### What This Subpart Covers

#### § 63.3280 What is in this subpart?

This subpart describes the actions you must take to reduce emissions of organic hazardous air pollutants (HAP) from paper and other web coating operations. This subpart establishes emission standards for web coating lines and specifies what you must do to comply if you own or operate a facility with web coating lines that is a major source of HAP. Certain requirements apply to all who are subject to this subpart; others depend on the means you use to comply with an emission standard.

#### § 63.3290 Does this subpart apply to me?

The provisions of this subpart apply to each new and existing facility that is a major source of HAP, as defined in §63.2, at which web coating lines are operated.

#### § 63.3300 Which of my emission sources are affected by this subpart?

The affected source subject to this subpart is the collection of all web coating lines at your facility. This includes web coating lines engaged in the coating of metal webs that are used in flexible packaging, and web coating lines engaged in the coating of fabric substrates for use in pressure sensitive tape and abrasive materials. Web coating lines specified in paragraphs (a) through (g) of this section are not part of the affected source of this subpart.

- (a) Any web coating line that is stand-alone equipment under subpart KK of this part (National Emission Standards for the Printing and Publishing Industry) which the owner or operator includes in the affected source under subpart KK.
- (b) Any web coating line that is a product and packaging rotogravure or wide-web flexographic press under subpart KK of this part (national emission standards for the printing and publishing industry) which is included in the affected source under subpart KK.
- (c) Web coating in lithography, screenprinting, letterpress, and narrow-web flexographic printing processes.
- (d) Any web coating line subject to subpart EE of this part (national emission standards for magnetic tape manufacturing operations).
- (e) Any web coating line that will be subject to the national emission standards for hazardous air pollutants (NESHAP) for surface coating of metal coil currently under development.
- (f) Any web coating line that will be subject to the NESHAP for the printing, coating, and dyeing of fabric and other textiles currently under development. This would include any web coating line that coats both a paper or other web substrate and a fabric or other textile substrate, except for a fabric substrate used for pressure sensitive tape and abrasive materials.

Avery Dennison MFD Page 3 of 43 Lowell, Indiana SPM 089-28616-00407

Permit Reviewer: Michael S. Brooks

(g) Any web coating line that is defined as research or laboratory equipment in §63.3310.

[67 FR 72341, Dec. 4, 2002, as amended at 71 FR 29805, May 24, 2006]

#### § 63.3310 What definitions are used in this subpart?

All terms used in this subpart that are not defined in this section have the meaning given to them in the Clean Air Act (CAA) and in subpart A of this part.

Always-controlled work station means a work station associated with a dryer from which the exhaust is delivered to a control device with no provision for the dryer exhaust to bypass the control device unless there is an interlock to interrupt and prevent continued coating during a bypass. Sampling lines for analyzers, relief valves needed for safety purposes, and periodic cycling of exhaust dampers to ensure safe operation are not considered bypass lines.

Applied means, for the purposes of this subpart, the amount of organic HAP, coating material, or coating solids (as appropriate for the emission standards in §63.3320(b)) used by the affected source during the compliance period.

As-applied means the condition of a coating at the time of application to a substrate, including any added solvent.

As-purchased means the condition of a coating as delivered to the user.

Capture efficiency means the fraction of all organic HAP emissions generated by a process that is delivered to a control device, expressed as a percentage.

Capture system means a hood, enclosed room, or other means of collecting organic HAP emissions into a closed-vent system that exhausts to a control device.

*Car-seal* means a seal that is placed on a device that is used to change the position of a valve or damper ( *e.g.*, from open to closed) in such a way that the position of the valve or damper cannot be changed without breaking the seal.

Coating material(s) means all inks, varnishes, adhesives, primers, solvents, reducers, and other coating materials applied to a substrate via a web coating line. Materials used to form a substrate are not considered coating materials.

Control device means a device such as a solvent recovery device or oxidizer which reduces the organic HAP in an exhaust gas by recovery or by destruction.

Control device efficiency means the ratio of organic HAP emissions recovered or destroyed by a control device to the total organic HAP emissions that are introduced into the control device, expressed as a percentage.

Day means a 24-consecutive-hour period.

Deviation means any instance in which an affected source, subject to this subpart, or an owner or operator of such a source:

- (1) Fails to meet any requirement or obligation established by this subpart including, but not limited to, any emission limitation (including any operating limit) or work practice standard;
- (2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

Avery Dennison MFD
Page 4 of 43
Lowell, Indiana
SPM 089-28616-00407

Permit Reviewer: Michael S. Brooks

(3) Fails to meet any emission limitation (including any operating limit) or work practice standard in this subpart during start-up, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart.

Existing affected source means any affected source the construction or reconstruction of which is commenced on or before September 13, 2000, and has not undergone reconstruction as defined in §63.2.

Fabric means any woven, knitted, plaited, braided, felted, or non-woven material made of filaments, fibers, or yarns including thread. This term includes material made of fiberglass, natural fibers, synthetic fibers, or composite materials.

Facility means all contiguous or adjoining property that is under common ownership or control, including properties that are separated only by a road or other public right-of-way.

Flexible packaging means any package or part of a package the shape of which can be readily changed. Flexible packaging includes, but is not limited to, bags, pouches, labels, liners and wraps utilizing paper, plastic, film, aluminum foil, metalized or coated paper or film, or any combination of these materials.

Formulation data means data on the organic HAP mass fraction, volatile matter mass fraction, or coating solids mass fraction of a material that is generated by the manufacturer or means other than a test method specified in this subpart or an approved alternative method.

HAP means hazardous air pollutants.

HAP applied means the organic HAP content of all coating materials applied to a substrate by a web coating line at an affected source.

Intermittently-controlled work station means a work station associated with a dryer with provisions for the dryer exhaust to be delivered to or diverted from a control device through a bypass line, depending on the position of a valve or damper. Sampling lines for analyzers, relief valves needed for safety purposes, and periodic cycling of exhaust dampers to ensure safe operation are not considered bypass lines.

Metal coil means a continuous metal strip that is at least 0.15 millimeter (0.006 inch) thick which is packaged in a roll or coil prior to coating. After coating, it may or may not be rewound into a roll or coil. Metal coil does not include metal webs that are coated for use in flexible packaging.

Month means a calendar month or a pre-specified period of 28 days to 35 days to allow for flexibility in recordkeeping when data are based on a business accounting period.

Never-controlled work station means a work station that is not equipped with provisions by which any emissions, including those in the exhaust from any associated dryer, may be delivered to a control device.

New affected source means any affected source the construction or reconstruction of which is commenced after September 13, 2000.

Overall organic HAP control efficiency means the total efficiency of a capture and control system.

Pressure sensitive tape means a flexible backing material with a pressure-sensitive adhesive coating on one or both sides of the backing. Examples include, but are not limited to, duct/duct insulation tape and medical tape.

Research or laboratory equipment means any equipment for which the primary purpose is to conduct research and development into new processes and products where such equipment is operated under the close supervision of technically trained personnel and is not engaged in the manufacture of products for commercial sale in commerce except in a *de minimis* manner.

Avery Dennison MFD
Page 5 of 43
Lowell, Indiana
SPM 089-28616-00407

Permit Reviewer: Michael S. Brooks

Rewind or cutting station means a unit from which substrate is collected at the outlet of a web coating line.

Uncontrolled coating line means a coating line consisting of only never-controlled work stations.

Unwind or feed station means a unit from which substrate is fed to a web coating line.

Web means a continuous substrate (e.g., paper, film, foil) which is flexible enough to be wound or unwound as rolls.

Web coating line means any number of work stations, of which one or more applies a continuous layer of coating material across the entire width or any portion of the width of a web substrate, and any associated curing/drying equipment between an unwind or feed station and a rewind or cutting station.

Work station means a unit on a web coating line where coating material is deposited onto a web substrate.

#### **Emission Standards and Compliance Dates**

#### § 63.3320 What emission standards must I meet?

- (a) If you own or operate any affected source that is subject to the requirements of this subpart, you must comply with these requirements on and after the compliance dates as specified in §63.3330.
- (b) You must limit organic HAP emissions to the level specified in paragraph (b)(1), (2), (3), or (4) of this section.
- (1) No more than 5 percent of the organic HAP applied for each month (95 percent reduction) at existing affected sources, and no more than 2 percent of the organic HAP applied for each month (98 percent reduction) at new affected sources; or
- (2) No more than 4 percent of the mass of coating materials applied for each month at existing affected sources, and no more than 1.6 percent of the mass of coating materials applied for each month at new affected sources; or
- (3) No more than 20 percent of the mass of coating solids applied for each month at existing affected sources, and no more than 8 percent of the coating solids applied for each month at new affected sources.
- (4) If you use an oxidizer to control organic HAP emissions, operate the oxidizer such that an outlet organic HAP concentration of no greater than 20 parts per million by volume (ppmv) by compound on a dry basis is achieved and the efficiency of the capture system is 100 percent.
- (c) You must demonstrate compliance with this subpart by following the procedures in §63.3370.

#### § 63.3321 What operating limits must I meet?

- (a) For any web coating line or group of web coating lines for which you use add-on control devices, unless you use a solvent recovery system and conduct a liquid-liquid material balance, you must meet the operating limits specified in Table 1 to this subpart or according to paragraph (b) of this section. These operating limits apply to emission capture systems and control devices, and you must establish the operating limits during the performance test according to the requirements in §63.3360(e)(3). You must meet the operating limits at all times after you establish them.
- (b) If you use an add-on control device other than those listed in Table 1 to this subpart or wish to monitor an alternative parameter and comply with a different operating limit, you must apply to the Administrator for approval of alternative monitoring under §63.8(f).

Avery Dennison MFD
Page 6 of 43
Lowell, Indiana
SPM 089-28616-00407

Permit Reviewer: Michael S. Brooks

#### § 63.3330 When must I comply?

(a) If you own or operate an existing affected source subject to the provisions of this subpart, you must comply by the compliance date. The compliance date for existing affected sources in this subpart is December 5, 2005. You must complete any performance test required in §63.3360 within the time limits specified in §63.7(a)(2).

- (b) If you own or operate a new affected source subject to the provisions of this subpart, your compliance date is immediately upon start-up of the new affected source or by December 4, 2002, whichever is later. You must complete any performance test required in §63.3360 within the time limits specified in §63.7(a)(2).
- (c) If you own or operate a reconstructed affected source subject to the provisions of this subpart, your compliance date is immediately upon startup of the affected source or by December 4, 2002, whichever is later. Existing affected sources which have undergone reconstruction as defined in §63.2 are subject to the requirements for new affected sources. The costs associated with the purchase and installation of air pollution control equipment are not considered in determining whether the existing affected source has been reconstructed. Additionally, the costs of retrofitting and replacing of equipment that is installed specifically to comply with this subpart are not considered reconstruction costs. You must complete any performance test required in §63.3360 within the time limits specified in §63.7(a)(2).

### General Requirements for Compliance With the Emission Standards and for Monitoring and Performance Tests

#### § 63.3340 What general requirements must I meet to comply with the standards?

Table 2 to this subpart specifies the provisions of subpart A of this part that apply if you are subject to this subpart, such as startup, shutdown, and malfunction plans (SSMP) in §63.6(e)(3) for affected sources using a control device to comply with the emission standards.

## § 63.3350 If I use a control device to comply with the emission standards, what monitoring must I do?

(a) A summary of monitoring you must do follows:

If you operate a web coating line, and have the following:	Then you must:
(1) Intermittently-controlled work stations	Record parameters related to possible exhaust flow bypass of control device and to coating use (§63.3350(c)).
(2) Solvent recovery unit	Operate continuous emission monitoring system and perform quarterly audits or determine volatile matter recovered and conduct a liquid-liquid material balance (§63.3350(d)).
(3) Control Device	Operate continuous parameter monitoring system (§63.3350(e)).
(4) Capture system	Monitor capture system operating parameter (§63.3350(f)).

- (b) Following the date on which the initial performance test of a control device is completed to demonstrate continuing compliance with the standards, you must monitor and inspect each capture system and each control device used to comply with §63.3320. You must install and operate the monitoring equipment as specified in paragraphs (c) and (f) of this section.
- (c) Bypass and coating use monitoring. If you own or operate web coating lines with intermittently-controlled work stations, you must monitor bypasses of the control device and the mass of each coating material

Avery Dennison MFD Page 7 of 43
Lowell, Indiana SPM 089-28616-00407

Permit Reviewer: Michael S. Brooks

applied at the work station during any such bypass. If using a control device for complying with the requirements of this subpart, you must demonstrate that any coating material applied on a never-controlled work station or an intermittently-controlled work station operated in bypass mode is allowed in your compliance demonstration according to §63.3370(n) and (o). The bypass monitoring must be conducted using at least one of the procedures in paragraphs (c)(1) through (4) of this section for each work station and associated dryer.

- (1) Flow control position indicator. Install, calibrate, maintain, and operate according to the manufacturer's specifications a flow control position indicator that provides a record indicating whether the exhaust stream from the dryer was directed to the control device or was diverted from the control device. The time and flow control position must be recorded at least once per hour as well as every time the flow direction is changed. A flow control position indicator must be installed at the entrance to any bypass line that could divert the exhaust stream away from the control device to the atmosphere.
- (2) Car-seal or lock-and-key valve closures. Secure any bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism must be performed at least once every month to ensure that the valve or damper is maintained in the closed position, and the exhaust stream is not diverted through the bypass line.
- (3) Valve closure continuous monitoring. Ensure that any bypass line valve or damper is in the closed position through continuous monitoring of valve position when the emission source is in operation and is using a control device for compliance with the requirements of this subpart. The monitoring system must be inspected at least once every month to verify that the monitor will indicate valve position.
- (4) Automatic shutdown system. Use an automatic shutdown system in which the web coating line is stopped when flow is diverted away from the control device to any bypass line when the control device is in operation. The automatic system must be inspected at least once every month to verify that it will detect diversions of flow and would shut down operations in the event of such a diversion.
- (d) Solvent recovery unit. If you own or operate a solvent recovery unit to comply with §63.3320, you must meet the requirements in either paragraph (d)(1) or (2) of this section depending on how control efficiency is determined.
- (1) Continuous emission monitoring system (CEMS). If you are demonstrating compliance with the emission standards in §63.3320 through continuous emission monitoring of a control device, you must install, calibrate, operate, and maintain the CEMS according to paragraphs (d)(1)(i) through (iii) of this section.
- (i) Measure the total organic volatile matter mass flow rate at both the control device inlet and the outlet such that the reduction efficiency can be determined. Each continuous emission monitor must comply with performance specification 6, 8, or 9 of 40 CFR part 60, appendix B, as appropriate.
- (ii) You must follow the quality assurance procedures in procedure 1, appendix F of 40 CFR part 60. In conducting the quarterly audits of the monitors as required by procedure 1, appendix F, you must use compounds representative of the gaseous emission stream being controlled.
- (iii) You must have valid data from at least 90 percent of the hours during which the process is operated.
- (2) Liquid-liquid material balance. If you are demonstrating compliance with the emission standards in §63.3320 through liquid-liquid material balance, you must install, calibrate, maintain, and operate according to the manufacturer's specifications a device that indicates the cumulative amount of volatile matter recovered by the solvent recovery device on a monthly basis. The device must be certified by the manufacturer to be accurate to within ±2.0 percent by mass.
- (e) Continuous parameter monitoring system (CPMS). If you are using a control device to comply with the emission standards in §63.3320, you must install, operate, and maintain each CPMS specified in paragraphs (e)(9) and (10) and (f) of this section according to the requirements in paragraphs (e)(1) through

Avery Dennison MFD Page 8 of 43
Lowell, Indiana SPM 089-28616-00407

Permit Reviewer: Michael S. Brooks

(8) of this section. You must install, operate, and maintain each CPMS specified in paragraph (c) of this section according to paragraphs (e)(5) through (7) of this section.

- (1) Each CPMS must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of four equally spaced successive cycles of CPMS operation to have a valid hour of data.
- (2) You must have valid data from at least 90 percent of the hours during which the process operated.
- (3) You must determine the hourly average of all recorded readings according to paragraphs (e)(3)(i) and (ii) of this section.
- (i) To calculate a valid hourly value, you must have at least three of four equally spaced data values from that hour from a continuous monitoring system (CMS) that is not out-of-control.
- (ii) Provided all of the readings recorded in accordance with paragraph (e)(3) of this section clearly demonstrate continuous compliance with the standard that applies to you, then you are not required to determine the hourly average of all recorded readings.
- (4) You must determine the rolling 3-hour average of all recorded readings for each operating period. To calculate the average for each 3-hour averaging period, you must have at least two of three of the hourly averages for that period using only average values that are based on valid data ( *i.e.*, not from out-of-control periods).
- (5) You must record the results of each inspection, calibration, and validation check of the CPMS.
- (6) At all times, you must maintain the monitoring system in proper working order including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
- (7) Except for monitoring malfunctions, associated repairs, or required quality assurance or control activities (including calibration checks or required zero and span adjustments), you must conduct all monitoring at all times that the unit is operating. Data recorded during monitoring malfunctions, associated repairs, out-of-control periods, or required quality assurance or control activities shall not be used for purposes of calculating the emissions concentrations and percent reductions specified in §63.3370. You must use all the valid data collected during all other periods in assessing compliance of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.
- (8) Any averaging period for which you do not have valid monitoring data and such data are required constitutes a deviation, and you must notify the Administrator in accordance with §63.3400(c).
- (9) Oxidizer. If you are using an oxidizer to comply with the emission standards, you must comply with paragraphs (e)(9)(i) through (iii) of this section.
- (i) Install, calibrate, maintain, and operate temperature monitoring equipment according to the manufacturer's specifications. The calibration of the chart recorder, data logger, or temperature indicator must be verified every 3 months or the chart recorder, data logger, or temperature indicator must be replaced. You must replace the equipment whether you choose not to perform the calibration or the equipment cannot be calibrated properly.
- (ii) For an oxidizer other than a catalytic oxidizer, install, calibrate, operate, and maintain a temperature monitoring device equipped with a continuous recorder. The device must have an accuracy of ±1 percent of the temperature being monitored in degrees Celsius, or ±1 °Celsius, whichever is greater. The thermocouple or temperature sensor must be installed in the combustion chamber at a location in the combustion zone.

Avery Dennison MFD
Page 9 of 43
Lowell, Indiana
SPM 089-28616-00407

Permit Reviewer: Michael S. Brooks

(iii) For a catalytic oxidizer, install, calibrate, operate, and maintain a temperature monitoring device equipped with a continuous recorder. The device must be capable of monitoring temperature with an accuracy of ±1 percent of the temperature being monitored in degrees Celsius or ±1 degree Celsius, whichever is greater. The thermocouple or temperature sensor must be installed in the vent stream at the nearest feasible point to the inlet and outlet of the catalyst bed. Calculate the temperature rise across the catalyst.

- (10) Other types of control devices. If you use a control device other than an oxidizer or wish to monitor an alternative parameter and comply with a different operating limit, you must apply to the Administrator for approval of an alternative monitoring method under §63.8(f).
- (f) Capture system monitoring. If you are complying with the emission standards in §63.3320 through the use of a capture system and control device for one or more web coating lines, you must develop a site-specific monitoring plan containing the information specified in paragraphs (f)(1) and (2) of this section for these capture systems. You must monitor the capture system in accordance with paragraph (f)(3) of this section. You must make the monitoring plan available for inspection by the permitting authority upon request.
- (1) The monitoring plan must:
- (i) Identify the operating parameter to be monitored to ensure that the capture efficiency determined during the initial compliance test is maintained; and
- (ii) Explain why this parameter is appropriate for demonstrating ongoing compliance; and
- (iii) Identify the specific monitoring procedures.
- (2) The monitoring plan must specify the operating parameter value or range of values that demonstrate compliance with the emission standards in §63.3320. The specified operating parameter value or range of values must represent the conditions present when the capture system is being properly operated and maintained.
- (3) You must conduct all capture system monitoring in accordance with the plan.
- (4) Any deviation from the operating parameter value or range of values which are monitored according to the plan will be considered a deviation from the operating limit.
- (5) You must review and update the capture system monitoring plan at least annually.

#### § 63.3360 What performance tests must I conduct?

(a) The performance test methods you must conduct are as follows:

If you control organic HAP on any individual web coating line or any group of web coating lines by:	You must:
or volatile matter content of coatings	Determine the organic HAP or volatile matter and coating solids content of coating materials according to procedures in §63.3360(c) and (d). If applicable, determine the mass of volatile matter retained in the coated web or otherwise not emitted to the atmosphere according to §63.3360(g).

Avery Dennison MFD
Page 10 of 43
Lowell, Indiana
SPM 089-28616-00407

Permit Reviewer: Michael S. Brooks

### (2) Using a capture and control system

Conduct a performance test for each capture and control system to determine: the destruction or removal efficiency of each control device other than solvent recovery according to §63.3360(e), and the capture efficiency of each capture system according to §63.3360(f). If applicable, determine the mass of volatile matter retained in the coated web or otherwise not emitted to the atmosphere according to §63.3360(g).

- (b) If you are using a control device to comply with the emission standards in §63.3320, you are not required to conduct a performance test to demonstrate compliance if one or more of the criteria in paragraphs (b)(1) through (3) of this section are met.
- (1) The control device is equipped with continuous emission monitors for determining inlet and outlet total organic volatile matter concentration and capture efficiency has been determined in accordance with the requirements of this subpart such that an overall organic HAP control efficiency can be calculated, and the continuous emission monitors are used to demonstrate continuous compliance in accordance with §63.3350; or
- (2) You have met the requirements of §63.7(h) (for waiver of performance testing; or
- (3) The control device is a solvent recovery system and you comply by means of a monthly liquid-liquid material balance.
- (c) Organic HAP content. If you determine compliance with the emission standards in §63.3320 by means other than determining the overall organic HAP control efficiency of a control device, you must determine the organic HAP mass fraction of each coating material "as-purchased" by following one of the procedures in paragraphs (c)(1) through (3) of this section, and determine the organic HAP mass fraction of each coating material "as-applied" by following the procedures in paragraph (c)(4) of this section. If the organic HAP content values are not determined using the procedures in paragraphs (c)(1) through (3) of this section, the owner or operator must submit an alternative test method for determining their values for approval by the Administrator in accordance with §63.7(f). The recovery efficiency of the test method must be determined for all of the target organic HAP and a correction factor, if necessary, must be determined and applied.
- (1) Method 311. You may test the coating material in accordance with Method 311 of appendix A of this part. The Method 311 determination may be performed by the manufacturer of the coating material and the results provided to the owner or operator. The organic HAP content must be calculated according to the criteria and procedures in paragraphs (c)(1)(i) through (iii) of this section.
- (i) Include each organic HAP determined to be present at greater than or equal to 0.1 mass percent for Occupational Safety and Health Administration (OSHA)-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and greater than or equal to 1.0 mass percent for other organic HAP compounds.
- (ii) Express the mass fraction of each organic HAP you include according to paragraph (c)(1)(i) of this section as a value truncated to four places after the decimal point (for example, 0.3791).
- (iii) Calculate the total mass fraction of organic HAP in the tested material by summing the counted individual organic HAP mass fractions and truncating the result to three places after the decimal point (for example, 0.763).
- (2) Method 24. For coatings, determine the volatile organic content as mass fraction of nonaqueous volatile matter and use it as a substitute for organic HAP using Method 24 of 40 CFR part 60, appendix A. The Method 24 determination may be performed by the manufacturer of the coating and the results provided to you.

Avery Dennison MFD
Page 11 of 43
Lowell, Indiana
SPM 089-28616-00407

Permit Reviewer: Michael S. Brooks

(3) Formulation data. You may use formulation data to determine the organic HAP mass fraction of a coating material. Formulation data may be provided to the owner or operator by the manufacturer of the material. In the event of an inconsistency between Method 311 (appendix A of 40 CFR part 63) test data and a facility's formulation data, and the Method 311 test value is higher, the Method 311 data will govern. Formulation data may be used provided that the information represents all organic HAP present at a level equal to or greater than 0.1 percent for OSHA-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and equal to or greater than 1.0 percent for other organic HAP compounds in any raw material used.

- (4) As-applied organic HAP mass fraction. If the as-purchased coating material is applied to the web without any solvent or other material added, then the as-applied organic HAP mass fraction is equal to the as-purchased organic HAP mass fraction. Otherwise, the as-applied organic HAP mass fraction must be calculated using Equation 1a of §63.3370.
- (d) Volatile organic and coating solids content. If you determine compliance with the emission standards in §63.3320 by means other than determining the overall organic HAP control efficiency of a control device and you choose to use the volatile organic content as a surrogate for the organic HAP content of coatings, you must determine the as-purchased volatile organic content and coating solids content of each coating material applied by following the procedures in paragraph (d)(1) or (2) of this section, and the as-applied volatile organic content and coating solids content of each coating material by following the procedures in paragraph (d)(3) of this section.
- (1) Method 24. You may determine the volatile organic and coating solids mass fraction of each coating applied using Method 24 (40 CFR part 60, appendix A.) The Method 24 determination may be performed by the manufacturer of the material and the results provided to you. If these values cannot be determined using Method 24, you must submit an alternative technique for determining their values for approval by the Administrator.
- (2) Formulation data. You may determine the volatile organic content and coating solids content of a coating material based on formulation data and may rely on volatile organic content data provided by the manufacturer of the material. In the event of any inconsistency between the formulation data and the results of Method 24 of 40 CFR part 60, appendix A, and the Method 24 results are higher, the results of Method 24 will govern.
- (3) As-applied volatile organic content and coating solids content. If the as-purchased coating material is applied to the web without any solvent or other material added, then the as-applied volatile organic content is equal to the as-purchased volatile content and the as-applied coating solids content is equal to the as-purchased coating solids content. Otherwise, the as-applied volatile organic content must be calculated using Equation 1b of §63.3370 and the as-applied coating solids content must be calculated using Equation 2 of §63.3370.
- (e) Control device efficiency. If you are using an add-on control device other than solvent recovery, such as an oxidizer, to comply with the emission standards in §63.3320, you must conduct a performance test to establish the destruction or removal efficiency of the control device according to the methods and procedures in paragraphs (e)(1) and (2) of this section. During the performance test, you must establish the operating limits required by §63.3321 according to paragraph (e)(3) of this section.
- (1) An initial performance test to establish the destruction or removal efficiency of the control device must be conducted such that control device inlet and outlet testing is conducted simultaneously, and the data are reduced in accordance with the test methods and procedures in paragraphs (e)(1)(i) through (ix) of this section. You must conduct three test runs as specified in §63.7(e)(3), and each test run must last at least 1 hour.
- (i) Method 1 or 1A of 40 CFR part 60, appendix A, must be used for sample and velocity traverses to determine sampling locations.
- (ii) Method 2, 2A, 2C, 2D, 2F, or 2G of 40 CFR part 60, appendix A, must be used to determine gas volumetric flow rate.

Avery Dennison MFD
Page 12 of 43
Lowell, Indiana
SPM 089-28616-00407

Permit Reviewer: Michael S. Brooks

(iii) Method 3, 3A, or 3B of 40 CFR part 60, appendix A, must be used for gas analysis to determine dry molecular weight. You may also use as an alternative to Method 3B the manual method for measuring the oxygen, carbon dioxide, and carbon monoxide content of exhaust gas in ANSI/ASME PTC 19.10–1981, "Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus]," (incorporated by reference, see §63.14).

- (iv) Method 4 of 40 CFR part 60, appendix A, must be used to determine stack gas moisture.
- (v) The gas volumetric flow rate, dry molecular weight, and stack gas moisture must be determined during each test run specified in paragraph (f)(1)(vii) of this section.
- (vi) Method 25 or 25A of 40 CFR part 60, appendix A, must be used to determine total gaseous non-methane organic matter concentration. Use the same test method for both the inlet and outlet measurements which must be conducted simultaneously. You must submit notice of the intended test method to the Administrator for approval along with notification of the performance test required under §63.7(b). You must use Method 25A if any of the conditions described in paragraphs (e)(1)(vi)(A) through (D) of this section apply to the control device.
- (A) The control device is not an oxidizer.
- (B) The control device is an oxidizer but an exhaust gas volatile organic matter concentration of 50 ppmv or less is required to comply with the emission standards in §63.3320; or
- (C) The control device is an oxidizer but the volatile organic matter concentration at the inlet to the control system and the required level of control are such that they result in exhaust gas volatile organic matter concentrations of 50 ppmv or less; or
- (D) The control device is an oxidizer but because of the high efficiency of the control device the anticipated volatile organic matter concentration at the control device exhaust is 50 ppmv or less, regardless of inlet concentration.
- (vii) Except as provided in §63.7(e)(3), each performance test must consist of three separate runs with each run conducted for at least 1 hour under the conditions that exist when the affected source is operating under normal operating conditions. For the purpose of determining volatile organic compound concentrations and mass flow rates, the average of the results of all the runs will apply.
- (viii) Volatile organic matter mass flow rates must be determined for each run specified in paragraph (e)(1)(vii) of this section using Equation 1 of this section:

$$M_f = Q_{sd}C_c[12][0.0416][10^{-6}]$$
 Eq. 1

Where:

M<sub>f</sub>= Total organic volatile matter mass flow rate, kilograms (kg)/hour (h).

Q<sub>sd</sub>= Volumetric flow rate of gases entering or exiting the control device, as determined according to §63.3360(e)(1)(ii), dry standard cubic meters (dscm)/h.

C<sub>c</sub>= Concentration of organic compounds as carbon, ppmv.

12.0 = Molecular weight of carbon.

Avery Dennison MFD
Page 13 of 43
Lowell, Indiana
SPM 089-28616-00407

Permit Reviewer: Michael S. Brooks

0.0416 = Conversion factor for molar volume, kg-moles per cubic meter (mol/m<sup>3</sup>) (@ 293 Kelvin (K) and 760 millimeters of mercury (mmHg)).

(ix) For each run, emission control device destruction or removal efficiency must be determined using Equation 2 of this section:

$$E = \frac{M_{fi} - M_{fo}}{M_{fi}} \times 100$$
 Eq. 2

Where:

E = Organic volatile matter control efficiency of the control device, percent.

M<sub>fj</sub>= Organic volatile matter mass flow rate at the inlet to the control device, kg/h.

M<sub>fo</sub>= Organic volatile matter mass flow rate at the outlet of the control device, kg/h.

- (x) The control device destruction or removal efficiency is determined as the average of the efficiencies determined in the test runs and calculated in Equation 2 of this section.
- (2) You must record such process information as may be necessary to determine the conditions in existence at the time of the performance test. Operations during periods of startup, shutdown, and malfunction will not constitute representative conditions for the purpose of a performance test.
- (3) Operating limits. If you are using one or more add-on control device other than a solvent recovery system for which you conduct a liquid-liquid material balance to comply with the emission standards in §63.3320, you must establish the applicable operating limits required by §63.3321. These operating limits apply to each add-on emission control device, and you must establish the operating limits during the performance test required by paragraph (e) of this section according to the requirements in paragraphs (e)(3)(i) and (ii) of this section.
- (i) Thermal oxidizer. If your add-on control device is a thermal oxidizer, establish the operating limits according to paragraphs (e)(3)(i)(A) and (B) of this section.
- (A) During the performance test, you must monitor and record the combustion temperature at least once every 15 minutes during each of the three test runs. You must monitor the temperature in the firebox of the thermal oxidizer or immediately downstream of the firebox before any substantial heat exchange occurs.
- (B) Use the data collected during the performance test to calculate and record the average combustion temperature maintained during the performance test. This average combustion temperature is the minimum operating limit for your thermal oxidizer.
- (ii) Catalytic oxidizer. If your add-on control device is a catalytic oxidizer, establish the operating limits according to paragraphs (e)(3)(ii)(A) and (B) or paragraphs (e)(3)(ii)(C) and (D) of this section.
- (A) During the performance test, you must monitor and record the temperature just before the catalyst bed and the temperature difference across the catalyst bed at least once every 15 minutes during each of the three test runs.
- (B) Use the data collected during the performance test to calculate and record the average temperature just before the catalyst bed and the average temperature difference across the catalyst bed maintained during the performance test. These are the minimum operating limits for your catalytic oxidizer.

Avery Dennison MFD
Page 14 of 43
Lowell, Indiana
SPM 089-28616-00407

Permit Reviewer: Michael S. Brooks

(C) As an alternative to monitoring the temperature difference across the catalyst bed, you may monitor the temperature at the inlet to the catalyst bed and implement a site-specific inspection and maintenance plan for your catalytic oxidizer as specified in paragraph (e)(3)(ii)(D) of this section. During the performance test, you must monitor and record the temperature just before the catalyst bed at least once every 15 minutes during each of the three test runs. Use the data collected during the performance test to calculate and record the average temperature just before the catalyst bed during the performance test. This is the minimum operating limit for your catalytic oxidizer.

- (D) You must develop and implement an inspection and maintenance plan for your catalytic oxidizer(s) for which you elect to monitor according to paragraph (e)(3)(ii)(C) of this section. The plan must address, at a minimum, the elements specified in paragraphs (e)(3)(ii)(D)(1) through (3) of this section.
- (1) Annual sampling and analysis of the catalyst activity (i.e., conversion efficiency) following the manufacturer's or catalyst supplier's recommended procedures,
- (2) Monthly inspection of the oxidizer system including the burner assembly and fuel supply lines for problems, and
- (3) Annual internal and monthly external visual inspection of the catalyst bed to check for channeling, abrasion, and settling. If problems are found, you must take corrective action consistent with the manufacturer's recommendations and conduct a new performance test to determine destruction efficiency in accordance with this section.
- (f) Capture efficiency. If you demonstrate compliance by meeting the requirements of §63.3370(e), (f), (g), (h), (i)(2), (k), (n)(2) or (3), or (p), you must determine capture efficiency using the procedures in paragraph (f)(1), (2), or (3) of this section, as applicable.
- (1) You may assume your capture efficiency equals 100 percent if your capture system is a permanent total enclosure (PTE). You must confirm that your capture system is a PTE by demonstrating that it meets the requirements of section 6 of EPA Method 204 of 40 CFR part 51, appendix M, and that all exhaust gases from the enclosure are delivered to a control device.
- (2) You may determine capture efficiency according to the protocols for testing with temporary total enclosures that are specified in Methods 204 and 204A through F of 40 CFR part 51, appendix M. You may exclude never-controlled work stations from such capture efficiency determinations.
- (3) You may use any capture efficiency protocol and test methods that satisfy the criteria of either the Data Quality Objective or the Lower Confidence Limit approach as described in appendix A of subpart KK of this part. You may exclude never-controlled work stations from such capture efficiency determinations.
- (g) Volatile matter retained in the coated web or otherwise not emitted to the atmosphere. You may choose to take into account the mass of volatile matter retained in the coated web after curing or drying or otherwise not emitted to the atmosphere when determining compliance with the emission standards in §63.3320. If you choose this option, you must develop a testing protocol to determine the mass of volatile matter retained in the coated web or otherwise not emitted to the atmosphere and submit this protocol to the Administrator for approval. You must submit this protocol with your site-specific test plan under §63.7(f). If you intend to take into account the mass of volatile matter retained in the coated web after curing or drying or otherwise not emitted to the atmosphere and demonstrate compliance according to §63.3370(c)(3), (c)(4), (c)(5), or (d), then the test protocol you submit must determine the mass of organic HAP retained in the coated web or otherwise not emitted to the atmosphere. Otherwise, compliance must be shown using the volatile organic matter content as a surrogate for the HAP content of the coatings.
- (h) Control devices in series. If you use multiple control devices in series to comply with the emission standards in §63.3320, the performance test must include, at a minimum, the inlet to the first control device in the series, the outlet of the last control device in the series, and all intermediate streams (e.g., gaseous exhaust to the atmosphere or a liquid stream from a recovery device) that are not subsequently treated by any of the control devices in the series.

#### **Requirements for Showing Compliance**

#### § 63.3370 How do I demonstrate compliance with the emission standards?

(a) A summary of how you must demonstrate compliance follows:

If you choose to demonstrate compliance by:	Then you must demonstrate that:	To accomplish this:
(1) Use of "as- purchased" compliant coating materials	(i) Each coating material used at an existing affected source does not exceed 0.04 kg organic HAP per kg coating material, and each coating material used at a new affected source does not exceed 0.016 kg organic HAP per kg coating material as-purchased; or	Follow the procedures set out in §63.3370(b).
	(ii) Each coating material used at an existing affected source does not exceed 0.2 kg organic HAP per kg coating solids, and each coating material used at a new affected source does not exceed 0.08 kg organic HAP per kg coating solids as-purchased	Follow the procedures set out in §63.3370(b).
(2) Use of "as- applied" compliant coating materials	(i) Each coating material used at an existing affected source does not exceed 0.04 kg organic HAP per kg coating material, and each coating material used at a new affected source does not exceed 0.016 kg organic HAP per kg coating material as-applied; or	Follow the procedures set out in §63.3370(c)(1). Use either Equation 1a or b of §63.3370 to determine compliance with §63.3320(b)(2) in accordance with §63.3370(c)(5)(i).
	(ii) Each coating material used at an existing affected source does not exceed 0.2 kg organic HAP per kg coating solids, and each coating material used at a new affected source does not exceed 0.08 kg organic HAP per kg coating solids as-applied; or	Follow the procedures set out in §63.3370(c)(2). Use Equations 2 and 3 of §63.3370 to determine compliance with §63.3320(b)(3) in accordance with §63.3370(c)(5)(i).
	(iii) Monthly average of all coating materials used at an existing affected source does not exceed 0.04 kg organic HAP per kg coating material, and monthly average of all coating materials used at a new affected source does not exceed 0.016 kg organic HAP per kg coating material as-applied on a monthly	Follow the procedures set out in §63.3370(c)(3). Use Equation 4 of §63.3370 to determine compliance with §63.3320(b)(2) in accordance with §63.3370(c)(5)(ii).

		<del> </del>
	average basis; or	
	(iv) Monthly average of all coating materials used at an existing affected source does not exceed 0.2 kg organic HAP per kg coating solids, and monthly average of all coating materials used at a new affected source does not exceed 0.08 kg organic HAP per kg coating solids as-applied on a monthly average basis	Follow the procedures set out in §63.3370(c)(4). Use Equation 5 of §63.3370 to determine compliance with §63.3320(b)(3) in accordance with §63.3370(c)(5)(ii).
	Total monthly organic HAP applied does not exceed the calculated limit based on emission limitations	Follow the procedures set out in §63.3370(d). Show that total monthly HAP applied (Equation 6 of §63.3370) is less than the calculated equivalent allowable organic HAP (Equation 13a or b of §63.3370).
(4) Use of a capture system and control device	(i) Overall organic HAP control efficiency is equal to 95 percent at an existing affected source and 98 percent at a new affected source on a monthly basis; or oxidizer outlet organic HAP concentration is no greater than 20 ppmv by compound and capture efficiency is 100 percent; or operating parameters are continuously monitored; or	Follow the procedures set out in §63.3370(e) to determine compliance with §63.3320(b)(1) according to §63.3370(i) if using a solvent recovery device, or §63.3370(j) if using a control device and CPMS, or §63.3370(k) if using an oxidizer.
	(ii) Overall organic HAP emission rate does not exceed 0.2 kg organic HAP per kg coating solids for an existing affected source or 0.08 kg organic HAP per kg coating solids for a new affected source on a monthly average as-applied basis;	Follow the procedures set out in §63.3370(f) to determine compliance with §63.3320(b)(3) according to §63.3370(i) if using a solvent recovery device, or §63.3370(k) if using an oxidizer.
	(iii) Overall organic HAP emission rate does not exceed 0.04 kg organic HAP per kg coating material for an existing affected source or 0.016 kg organic HAP per kg coating material for a new affected source on a monthly average as-applied basis; or	Follow the procedures set out in §63.3370(g) to determine compliance with §63.3320(b)(2) according to §63.3370(i) if using a solvent recovery device, or §63.3370(k) if using an oxidizer.
	limit based on emission limitations	Follow the procedures set out in §63.3370(h). Show that the monthly organic HAP emission rate is less than the calculated equivalent allowable organic HAP emission rate (Equation 13a or b of §63.3370). Calculate the monthly organic HAP emission rate according to §63.3370(i) if using a solvent recovery

		device, or §63.3370(k) if using an oxidizer.
(5) Use of multiple capture and/or control devices	(i) Overall organic HAP control efficiency is equal to 95 percent at an existing affected source and 98 percent at a new affected source on a monthly basis; or	Follow the procedures set out in §63.3370(e) to determine compliance with §63.3320(b)(1) according to §63.3370(e)(1) or (2).
	(ii) Average equivalent organic HAP emission rate does not exceed 0.2 kg organic HAP per kg coating solids for an existing affected source or 0.08 kg organic HAP per kg coating solids for a new affected source on a monthly average as-applied basis; or	
	(iii) Average equivalent organic HAP emission rate does not exceed 0.04 kg organic HAP per kg coating material for an existing affected source or 0.016 kg organic HAP per kg coating material for a new affected source on a monthly average as-applied basis; or	Follow the procedures set out in §63.3370(g) to determine compliance with §63.3320(b)(2) according to §63.3370(n).
	(iv) Average equivalent organic HAP emission rate does not exceed the calculated limit based on emission limitations	Follow the procedures set out in §63.3370(h). Show that the monthly organic HAP emission rate is less than the calculated equivalent allowable organic HAP emission rate (Equation 13a or b of §63.3370) according to §63.3370(n).
(6) Use of a combination of compliant coatings and control devices	(i) Average equivalent organic HAP emission rate does not exceed 0.2 kg organic HAP per kg coating solids for an existing affected source or 0.08 kg organic HAP per kg coating solids for a new affected source on a monthly average as-applied basis; or	
	(ii) Average equivalent organic HAP emission rate does not exceed 0.04 kg organic HAP per kg coating material for an existing affected source or 0.016 kg organic HAP per kg coating material for a new affected source on a monthly average as-applied basis; or	Follow the procedures set out in §63.3370(g) to determine compliance with §63.3320(b)(2) according to §63.3370(n).
	(iii) Average equivalent organic HAP emission rate does not exceed the calculated limit based on emission limitations	Follow the procedures set out in §63.3370(h). Show that the monthly organic HAP emission rate is less than the calculated equivalent allowable organic HAP emission rate (Equation 13a or b of §63.3370) according to

§63.3370(n).

- (b) As-purchased "compliant" coating materials. (1) If you comply by using coating materials that individually meet the emission standards in §63.3320(b)(2) or (3), you must demonstrate that each coating material applied during the month at an existing affected source contains no more than 0.04 mass fraction organic HAP or 0.2 kg organic HAP per kg coating solids, and that each coating material applied during the month at a new affected source contains no more than 0.016 mass fraction organic HAP or 0.08 kg organic HAP per kg coating solids on an as-purchased basis as determined in accordance with §63.3360(c).
- (2) You are in compliance with emission standards in §63.3320(b)(2) and (3) if each coating material applied at an existing affected source is applied as-purchased and contains no more than 0.04 kg organic HAP per kg coating material or 0.2 kg organic HAP per kg coating solids, and each coating material applied at a new affected source is applied as-purchased and contains no more than 0.016 kg organic HAP per kg coating material or 0.08 kg organic HAP per kg coating solids.
- (c) As-applied "compliant" coating materials. If you comply by using coating materials that meet the emission standards in §63.3320(b)(2) or (3) as-applied, you must demonstrate compliance by following one of the procedures in paragraphs (c)(1) through (4) of this section. Compliance is determined in accordance with paragraph (c)(5) of this section.
- (1) Each coating material as-applied meets the mass fraction of coating material standard (§63.3320(b)(2)). You must demonstrate that each coating material applied at an existing affected source during the month contains no more than 0.04 kg organic HAP per kg coating material applied, and each coating material applied at a new affected source contains no more than 0.016 kg organic HAP per kg coating material applied as determined in accordance with paragraphs (c)(1)(i) and (ii) of this section. You must calculate the as-applied organic HAP content of as-purchased coating materials which are reduced, thinned, or diluted prior to application.
- (i) Determine the organic HAP content or volatile organic content of each coating material applied on an aspurchased basis in accordance with §63.3360(c).
- (ii) Calculate the as-applied organic HAP content of each coating material using Equation 1a of this section:

$$C_{ahi} = \frac{\left(C_{hi}M_i + \sum\limits_{j=1}^q C_{hij}M_{ij}\right)}{M_i + \sum\limits_{j=1}^q M_{ij}} \qquad \text{Eq. 1a}$$

Where:

 $C_{ahi}$ = Monthly average, as-applied, organic HAP content of coating material, i, expressed as a mass fraction, kg/kg.

C<sub>hi</sub>= Organic HAP content of coating material, i, as-purchased, expressed as a mass fraction, kg/kg.

M<sub>i</sub>= Mass of as-purchased coating material, i, applied in a month, kg.

a = number of different materials added to the coating material.

C<sub>hij</sub>= Organic HAP content of material, j, added to as-purchased coating material, i, expressed as a mass fraction, kg/kg.

M<sub>ii</sub>= Mass of material, j, added to as-purchased coating material, i, in a month, kg.

M<sub>i</sub>= Mass of as-purchased coating material, i, applied in a month, kg.

or calculate the as-applied volatile organic content of each coating material using Equation 1b of this section:

$$C_{avi} = \frac{\left(C_{vi}M_i + \sum\limits_{j=1}^{q} C_{vij}M_{ij}\right)}{M_i + \sum\limits_{j=1}^{q} M_{ij}} \qquad \text{Eq. 1b}$$

Where:

 $C_{\text{avi}}$ = Monthly average, as-applied, volatile organic content of coating material, i, expressed as a mass fraction, kg/kg.

C<sub>vi</sub>= Volatile organic content of coating material, i, expressed as a mass fraction, kg/kg.

M<sub>i</sub>= Mass of as-purchased coating material, i, applied in a month, kg.

q = Number of different materials added to the coating material.

 $C_{vij}$ = Volatile organic content of material, j, added to as-purchased coating material, i, expressed as a mass fraction, kg/kg.

M<sub>i</sub>= Mass of material, j, added to as-purchased coating material, i, in a month, kg.

- (2) Each coating material as-applied meets the mass fraction of coating solids standard (§63.3320(b)(3)). You must demonstrate that each coating material applied at an existing affected source contains no more than 0.20 kg of organic HAP per kg of coating solids applied and each coating material applied at a new affected source contains no more than 0.08 kg of organic HAP per kg of coating solids applied. You must demonstrate compliance in accordance with paragraphs (c)(2)(i) and (ii) of this section.
- (i) Determine the as-applied coating solids content of each coating material following the procedure in §63.3360(d). You must calculate the as-applied coating solids content of coating materials which are reduced, thinned, or diluted prior to application, using Equation 2 of this section:

$$C_{asi} = \frac{\left(C_{si}M_i + \sum_{j=1}^{q} C_{sij}M_{ij}\right)}{M_i + \sum_{j=1}^{q} M_{ij}}$$
 Eq. 2

Where:

Csi= Coating solids content of coating material, i, expressed as a mass fraction, kg/kg.

M<sub>i</sub>= Mass of as-purchased coating material, i, applied in a month, kg.

q = Number of different materials added to the coating material.

C<sub>sij</sub>= Coating solids content of material, j, added to as-purchased coating material, i, expressed as a mass-fraction, kg/kg.

M<sub>ii</sub>= Mass of material, j, added to as-purchased coating material, i, in a month, kg.

(ii) Calculate the as-applied organic HAP to coating solids ratio using Equation 3 of this section:

$$H_{si} = \frac{C_{ahi}}{C_{sci}}$$
 Eq. 3

Where:

H<sub>si</sub>= As-applied, organic HAP to coating solids ratio of coating material, i.

C<sub>ahi</sub>= Monthly average, as-applied, organic HAP content of coating material, i, expressed as a mass fraction, kg/kg.

C<sub>asi</sub>= Monthly average, as-applied, coating solids content of coating material, i, expressed as a mass fraction, kg/kg.

(3) Monthly average organic HAP content of all coating materials as-applied is less than the mass percent limit (§63.3320(b)(2)). Demonstrate that the monthly average as-applied organic HAP content of all coating materials applied at an existing affected source is less than 0.04 kg organic HAP per kg of coating material applied, and all coating materials applied at a new affected source are less than 0.016 kg organic HAP per kg of coating material applied, as determined by Equation 4 of this section:

$$H_{L} = \frac{\sum_{i=1}^{p} C_{hi} M_{i} + \sum_{j=1}^{q} C_{hij} M_{ij} - M_{vret}}{\sum_{i=1}^{p} M_{i} + \sum_{i=1}^{q} M_{ij}}$$
 Eq. 4

Where:

H<sub>L</sub>= Monthly average, as-applied, organic HAP content of all coating materials applied, expressed as kg organic HAP per kg of coating material applied, kg/kg.

p = Number of different coating materials applied in a month.

C<sub>hi</sub>= Organic HAP content of coating material, i, as-purchased, expressed as a mass fraction, kg/kg.

M<sub>i</sub>= Mass of as-purchased coating material, i, applied in a month, kg.

q = Number of different materials added to the coating material.

C<sub>hij</sub>= Organic HAP content of material, j, added to as-purchased coating material, i, expressed as a mass fraction, kg/kg.

M<sub>ii</sub>= Mass of material, j, added to as-purchased coating material, i, in a month, kg.

M<sub>vret</sub>= Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg. The value of this term will be zero in all cases except where you choose to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in §63.3370.

(4) Monthly average organic HAP content of all coating materials as-applied is less than the mass fraction of coating solids limit (§63.3320(b)(3)). Demonstrate that the monthly average as-applied organic HAP content on the basis of coating solids applied of all coating materials applied at an existing affected source is less than 0.20 kg organic HAP per kg coating solids applied, and all coating materials applied at a new affected source are less than 0.08 kg organic HAP per kg coating solids applied, as determined by Equation 5 of this section:

$$H_{S} = \frac{\sum\limits_{i=1}^{p} C_{hi} M_{i} + \sum\limits_{j=1}^{q} C_{hij} M_{ij} - M_{wret}}{\sum\limits_{i=1}^{p} C_{Si} M_{i} + \sum\limits_{j=1}^{q} C_{Sij} M_{ij}} \qquad \text{Eq. 5}$$

Where:

 $H_s$ = Monthly average, as-applied, organic HAP to coating solids ratio, kg organic HAP/kg coating solids applied.

p = Number of different coating materials applied in a month.

C<sub>hi</sub>= Organic HAP content of coating material, i, as-purchased, expressed as a mass fraction, kg/kg.

M<sub>i</sub>= Mass of as-purchased coating material, i, applied in a month, kg.

q = Number of different materials added to the coating material.

C<sub>hij</sub>= Organic HAP content of material, j, added to as-purchased coating material, i, expressed as a mass fraction, kg/kg.

M<sub>ij</sub>= Mass of material, j, added to as-purchased coating material, i, in a month, kg.

 $M_{\text{vret}}$ = Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg. The value of this term will be zero in all cases except where you choose to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in §63.3370.

C<sub>si</sub>= Coating solids content of coating material, i, expressed as a mass fraction, kg/kg.

Avery Dennison MFD Page 22 of 43 Lowell, Indiana SPM 089-28616-00407

Permit Reviewer: Michael S. Brooks

C<sub>sij</sub>= Coating solids content of material, j, added to as-purchased coating material, i, expressed as a mass-fraction, kg/kg.

- (5) The affected source is in compliance with emission standards in §63.3320(b)(2) or (3) if:
- (i) The organic HAP content of each coating material as-applied at an existing affected source is no more than 0.04 kg organic HAP per kg coating material or 0.2 kg organic HAP per kg coating solids, and the organic HAP content of each coating material as-applied at a new affected source contains no more than 0.016 kg organic HAP per kg coating material or 0.08 kg organic HAP per kg coating solids; or
- (ii) The monthly average organic HAP content of all as-applied coating materials at an existing affected source are no more than 0.04 kg organic HAP per kg coating material or 0.2 kg organic HAP per kg coating solids, and the monthly average organic HAP content of all as-applied coating materials at a new affected source is no more than 0.016 kg organic HAP per kg coating material or 0.08 kg organic HAP per kg coating solids.
- (d) Monthly allowable organic HAP applied. Demonstrate that the total monthly organic HAP applied as determined by Equation 6 of this section is less than the calculated equivalent allowable organic HAP as determined by Equation 13a or b in paragraph (l) of this section:

$$H_{m} = \sum_{i=1}^{p} C_{ki} M_{i} + \sum_{i=1}^{q} C_{kij} M_{ij} - M_{wret} \qquad Eq. 6$$

Where:

H<sub>m</sub>= Total monthly organic HAP applied, kg.

p = Number of different coating materials applied in a month.

C<sub>hi</sub>= Organic HAP content of coating material, i, as-purchased, expressed as a mass fraction, kg/kg.

M<sub>i</sub>= Mass of as-purchased coating material, i, applied in a month, kg.

q = Number of different materials added to the coating material.

C<sub>hij</sub>= Organic HAP content of material, j, added to as-purchased coating material, i, expressed as a mass fraction, kg/kg.

M<sub>ii</sub>= Mass of material, i, added to as-purchased coating material, i, in a month, kg.

M<sub>vret</sub>= Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg. The value of this term will be zero in all cases except where you choose to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in §63.3370.

(e) Capture and control to reduce emissions to no more than allowable limit (§63.3320(b)(1)). Operate a capture system and control device and demonstrate an overall organic HAP control efficiency of at least 95 percent at an existing affected source and at least 98 percent at a new affected source for each month, or operate a capture system and oxidizer so that an outlet organic HAP concentration of no greater than 20 ppmv by compound on a dry basis is achieved as long as the capture efficiency is 100 percent as detailed in §63.3320(b)(4). Unless one of the cases described in paragraph (e)(1), (2), or (3) of this section applies to the affected source, you must either demonstrate compliance in accordance with the procedure in paragraph

Avery Dennison MFD
Page 23 of 43
Lowell, Indiana
SPM 089-28616-00407

Permit Reviewer: Michael S. Brooks

(i) of this section when emissions from the affected source are controlled by a solvent recovery device, or the procedure in paragraph (k) of this section when emissions are controlled by an oxidizer or demonstrate compliance for a web coating line by operating each capture system and each control device and continuous parameter monitoring according to the procedures in paragraph (j) of this section.

- (1) If the affected source has only always-controlled work stations and operates more than one capture system or more than one control device, you must demonstrate compliance in accordance with the provisions of either paragraph (n) or (p) of this section.
- (2) If the affected source operates one or more never-controlled work stations or one or more intermittently-controlled work stations, you must demonstrate compliance in accordance with the provisions of paragraph (n) of this section.
- (3) An alternative method of demonstrating compliance with §63.3320(b)(1) is the installation of a PTE around the web coating line that achieves 100 percent capture efficiency and ventilation of all organic HAP emissions from the total enclosure to an oxidizer with an outlet organic HAP concentration of no greater than 20 ppmv by compound on a dry basis. If this method is selected, you must demonstrate compliance by following the procedures in paragraphs (e)(3)(i) and (ii) of this section. Compliance is determined according to paragraph (e)(3)(iii) of this section.
- (i) Demonstrate that a total enclosure is installed. An enclosure that meets the requirements in §63.3360(f)(1) will be considered a total enclosure.
- (ii) Determine the organic HAP concentration at the outlet of your total enclosure using the procedures in paragraph (e)(3)(ii)(A) or (B) of this section.
- (A) Determine the control device efficiency using Equation 2 of §63.3360 and the applicable test methods and procedures specified in §63.3360(e).
- (B) Use a CEMS to determine the organic HAP emission rate according to paragraphs (i)(2)(i) through (x) of this section.
- (iii) You are in compliance if the installation of a total enclosure is demonstrated and the organic HAP concentration at the outlet of the incinerator is demonstrated to be no greater than 20 ppmv by compound on a dry basis.
- (f) Capture and control to achieve mass fraction of coating solids applied limit (§63.3320(b)(3)). Operate a capture system and control device and limit the organic HAP emission rate from an existing affected source to no more than 0.20 kg organic HAP emitted per kg coating solids applied, and from a new affected source to no more than 0.08 kg organic HAP emitted per kg coating solids applied as determined on a monthly average as-applied basis. If the affected source operates more than one capture system, more than one control device, one or more never-controlled work stations, or one or more intermittently-controlled work stations, then you must demonstrate compliance in accordance with the provisions of paragraph (n) of this section. Otherwise, you must demonstrate compliance following the procedure in paragraph (i) of this section when emissions from the affected source are controlled by a solvent recovery device or the procedure in paragraph (k) of this section when emissions are controlled by an oxidizer.
- (g) Capture and control to achieve mass fraction limit (§63.3320(b)(2)). Operate a capture system and control device and limit the organic HAP emission rate to no more than 0.04 kg organic HAP emitted per kg coating material applied at an existing affected source, and no more than 0.016 kg organic HAP emitted per kg coating material applied at a new affected source as determined on a monthly average as-applied basis. If the affected source operates more than one capture system, more than one control device, one or more never-controlled work stations, or one or more intermittently-controlled work stations, then you must demonstrate compliance in accordance with the provisions of paragraph (n) of this section. Otherwise, you must demonstrate compliance following the procedure in paragraph (i) of this section when emissions from the affected source are controlled by a solvent recovery device or the procedure in paragraph (k) of this section when emissions are controlled by an oxidizer.

Avery Dennison MFD Page 24 of 43 Lowell, Indiana SPM 089-28616-00407

Permit Reviewer: Michael S. Brooks

(h) Capture and control to achieve allowable emission rate. Operate a capture system and control device and limit the monthly organic HAP emissions to less than the allowable emissions as calculated in accordance with paragraph (I) of this section. If the affected source operates more than one capture system, more than one control device, one or more never-controlled work stations, or one or more intermittently-controlled work stations, then you must demonstrate compliance in accordance with the provisions of paragraph (n) of this section. Otherwise, the owner or operator must demonstrate compliance following the procedure in paragraph (i) of this section when emissions from the affected source are controlled by a solvent recovery device or the procedure in paragraph (k) of this section when emissions are controlled by an oxidizer.

- (i) Solvent recovery device compliance demonstration. If you use a solvent recovery device to control emissions, you must show compliance by following the procedures in either paragraph (i)(1) or (2) of this section:
- (1) Liquid-liquid material balance. Perform a monthly liquid-liquid material balance as specified in paragraphs (i)(1)(i) through (v) of this section and use the applicable equations in paragraphs (i)(1)(vi) through (ix) of this section to convert the data to units of the selected compliance option in paragraphs (e) through (h) of this section. Compliance is determined in accordance with paragraph (i)(1)(x) of this section.
- (i) Determine the mass of each coating material applied on the web coating line or group of web coating lines controlled by a common solvent recovery device during the month.
- (ii) If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied, organic HAP emission rate based on coating material applied, or emission of less than the calculated allowable organic HAP, determine the organic HAP content of each coating material as-applied during the month following the procedure in §63.3360(c).
- (iii) Determine the volatile organic content of each coating material as-applied during the month following the procedure in §63.3360(d).
- (iv) If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied or emission of less than the calculated allowable organic HAP, determine the coating solids content of each coating material applied during the month following the procedure in §63.3360(d).
- (v) Determine and monitor the amount of volatile organic matter recovered for the month according to the procedures in §63.3350(d).
- (vi) Recovery efficiency. Calculate the volatile organic matter collection and recovery efficiency using Equation 7 of this section:

$$R_{v} = \frac{M_{wt} + M_{vret}}{\sum_{i=1}^{p} C_{vi} M_{i} + \sum_{i=1}^{q} C_{vij} M_{ij}} \times 100 \quad Eq. 7$$

Where:

R<sub>v</sub>= Organic volatile matter collection and recovery efficiency, percent.

M<sub>vr</sub>= Mass of volatile matter recovered in a month, kg.

M<sub>vret</sub>= Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg. The value of this term will be zero in all cases except where you choose to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in §63.3370.

p = Number of different coating materials applied in a month.

C<sub>vi</sub>= Volatile organic content of coating material, i, expressed as a mass fraction, kg/kg.

M<sub>i</sub>= Mass of as-purchased coating material, i, applied in a month, kg.

g = Number of different materials added to the coating material.

 $C_{vij}$ = Volatile organic content of material, j, added to as-purchased coating material, i, expressed as a mass fraction, kg/kg.

M<sub>ii</sub>= Mass of material, j, added to as-purchased coating material, i, in a month, kg.

(vii) Organic HAP emitted. Calculate the organic HAP emitted during the month using Equation 8 of this section:

$$H_{e} = \left[1 - \frac{R_{v}}{100}\right] \left[\sum_{i=1}^{p} C_{hi} M_{i} + \sum_{j=1}^{q} C_{hij} M_{ij} - M_{wret}\right] \qquad Eq. \ 8$$

Where:

H<sub>e</sub>= Total monthly organic HAP emitted, kg.

R<sub>v</sub>= Organic volatile matter collection and recovery efficiency, percent.

p = Number of different coating materials applied in a month.

C<sub>hi</sub>= Organic HAP content of coating material, i, as-purchased, expressed as a mass fraction, kg/kg.

M<sub>i</sub>= Mass of as-purchased coating material, i, applied in a month, kg.

q = Number of different materials added to the coating material.

 $C_{hij}$ = Organic HAP content of material, j, added to as-purchased coating material, i, expressed as a mass fraction, kg/kg.

M<sub>ii</sub>= Mass of material, i, added to as-purchased coating material, i, in a month, kg.

 $M_{\text{vret}}$ = Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg. The value of this term will be zero in all cases except where you choose to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in §63.3370.

(viii) Organic HAP emission rate based on coating solids applied. Calculate the organic HAP emission rate based on coating solids applied using Equation 9 of this section:

$$L = \frac{H_e}{\sum_{i=1}^{p} C_{si} M_i + \sum_{j=1}^{q} C_{sij} M_{ij}}$$
 Eq. 9

Where:

L = Mass organic HAP emitted per mass of coating solids applied, kg/kg.

H<sub>e</sub>= Total monthly organic HAP emitted, kg.

p = Number of different coating materials applied in a month.

C<sub>si</sub>= Coating solids content of coating material, i, expressed as a mass fraction, kg/kg.

M<sub>i</sub>= Mass of as-purchased coating material, i, applied in a month, kg.

q = Number of different materials added to the coating material.

 $C_{sij}$ = Coating solids content of material, j, added to as-purchased coating material, i, expressed as a mass-fraction, kg/kg.

M<sub>ii</sub>= Mass of material, j, added to as-purchased coating material, i, in a month, kg.

(ix) Organic HAP emission rate based on coating materials applied. Calculate the organic HAP emission rate based on coating material applied using Equation 10 of this section:

$$S = \frac{H_e}{\sum_{i=1}^{p} M_i + \sum_{i=1}^{q} M_{ij}}$$
 Eq. 10

Where:

S = Mass organic HAP emitted per mass of material applied, kg/kg.

H<sub>e</sub>= Total monthly organic HAP emitted, kg.

p = Number of different coating materials applied in a month.

M<sub>i</sub>= Mass of as-purchased coating material, i, applied in a month, kg.

g = Number of different materials added to the coating material.

M<sub>i</sub>= Mass of material, j, added to as-purchased coating material, i, in a month, kg.

- (x) You are in compliance with the emission standards in §63.3320(b) if:
- (A) The volatile organic matter collection and recovery efficiency is 95 percent or greater at an existing affected source and 98 percent or greater at a new affected source; or

Page 27 of 43 SPM 089-28616-00407

Avery Dennison MFD Lowell, Indiana

Permit Reviewer: Michael S. Brooks

- (B) The organic HAP emission rate based on coating solids applied is no more than 0.20 kg organic HAP per kg coating solids applied at an existing affected source and no more than 0.08 kg organic HAP per kg coating solids applied at a new affected source; or
- (C) The organic HAP emission rate based on coating material applied is no more than 0.04 kg organic HAP per kg coating material applied at an existing affected source and no more than 0.016 kg organic HAP per kg coating material applied at a new affected source; or
- (D) The organic HAP emitted during the month is less than the calculated allowable organic HAP as determined using paragraph (I) of this section.
- (2) Continuous emission monitoring of capture system and control device performance. Demonstrate initial compliance through a performance test on capture efficiency and continuing compliance through continuous emission monitors and continuous monitoring of capture system operating parameters following the procedures in paragraphs (i)(2)(i) through (vii) of this section. Use the applicable equations specified in paragraphs (i)(2)(viii) through (x) of this section to convert the monitoring and other data into units of the selected compliance option in paragraphs (e) through (h) of this section. Compliance is determined in accordance with paragraph (i)(2)(xi) of this section.
- (i) Control device efficiency. Continuously monitor the gas stream entering and exiting the control device to determine the total organic volatile matter mass flow rate (e.g., by determining the concentration of the vent gas in grams per cubic meter and the volumetric flow rate in cubic meters per second such that the total organic volatile matter mass flow rate in grams per second can be calculated) such that the control device efficiency of the control device can be calculated for each month using Equation 2 of §63.3360.
- (ii) Capture efficiency monitoring. Whenever a web coating line is operated, continuously monitor the operating parameters established in accordance with §63.3350(f) to ensure capture efficiency.
- (iii) Determine the percent capture efficiency in accordance with §63.3360(f).
- (iv) Control efficiency. Calculate the overall organic HAP control efficiency achieved for each month using Equation 11 of this section:

$$R = \frac{(E)(CE)}{100}$$
 Eq. 11

Where:

R = Overall organic HAP control efficiency, percent.

E = Organic volatile matter control efficiency of the control device, percent.

CE = Organic volatile matter capture efficiency of the capture system, percent.

- (v) If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied, organic HAP emission rate based on coating materials applied, or emission of less than the calculated allowable organic HAP, determine the mass of each coating material applied on the web coating line or group of web coating lines controlled by a common control device during the month.
- (vi) If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied, organic HAP emission rate based on coating material applied, or emission of less than the calculated allowable organic HAP, determine the organic HAP content of each coating material as-applied during the month following the procedure in §63.3360(c).

Avery Dennison MFD Page 28 of 43 Lowell, Indiana SPM 089-28616-00407

Permit Reviewer: Michael S. Brooks

(vii) If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied or emission of less than the calculated allowable organic HAP, determine the coating solids content of each coating material as-applied during the month following the procedure in §63.3360(d).

(viii) Organic HAP emitted. Calculate the organic HAP emitted during the month for each month using Equation 12 of this section:

$$H_e = (1-R)\left(\sum_{i=1}^{p} C_{aki}M_i\right) - M_{wet}$$
 Eq. 12

Where:

H<sub>e</sub>= Total monthly organic HAP emitted, kg.

R = Overall organic HAP control efficiency, percent.

p = Number of different coating materials applied in a month.

C<sub>ahi</sub>= Monthly average, as-applied, organic HAP content of coating material, i, expressed as a mass fraction, kg/kg.

M<sub>i</sub>= Mass of as-purchased coating material, i, applied in a month, kg.

M<sub>vret</sub>= Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg. The value of this term will be zero in all cases except where you choose to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in this section.

- (ix) Organic HAP emission rate based on coating solids applied. Calculate the organic HAP emission rate based on coating solids applied using Equation 9 of this section.
- (x) Organic HAP emission rate based on coating materials applied. Calculate the organic HAP emission rate based on coating material applied using Equation 10 of this section.
- (xi) Compare actual performance to the performance required by compliance option. The affected source is in compliance with the emission standards in §63.3320(b) for each month if the capture system is operated such that the average capture system operating parameter is greater than or less than (as appropriate) the operating parameter value established in accordance with §63.3350(f); and
- (A) The organic volatile matter collection and recovery efficiency is 95 percent or greater at an existing affected source and 98 percent or greater at a new affected source; or
- (B) The organic HAP emission rate based on coating solids applied is no more than 0.20 kg organic HAP per kg coating solids applied at an existing affected source and no more than 0.08 kg organic HAP per kg coating solids applied at a new affected source; or
- (C) The organic HAP emission rate based on coating material applied is no more than 0.04 kg organic HAP per kg coating material applied at an existing affected source and no more than 0.016 kg organic HAP per kg coating material applied at a new affected source; or
- (D) The organic HAP emitted during the month is less than the calculated allowable organic HAP as determined using paragraph (I) of this section.

Avery Dennison MFD
Page 29 of 43
Lowell, Indiana
SPM 089-28616-00407

Permit Reviewer: Michael S. Brooks

(j) Capture and control system compliance demonstration procedures using a CPMS. If you use an add-on control device, you must demonstrate initial compliance for each capture system and each control device through performance tests and demonstrate continuing compliance through continuous monitoring of capture system and control device operating parameters as specified in paragraphs (j)(1) through (3) of this section. Compliance is determined in accordance with paragraph (j)(4) of this section.

- (1) Determine the control device destruction or removal efficiency using the applicable test methods and procedures in §63.3360(e).
- (2) Determine the emission capture efficiency in accordance with §63.3360(f).
- (3) Whenever a web coating line is operated, continuously monitor the operating parameters established according to §63.3350(e) and (f).
- (4) You are in compliance with the emission standards in §63.3320(b) if the control device is operated such that the average operating parameter value is greater than or less than (as appropriate) the operating parameter value established in accordance with §63.3360(e) for each 3-hour period, and the capture system operating parameter is operated at an average value greater than or less than (as appropriate) the operating parameter value established in accordance with §63.3350(f); and
- (i) The overall organic HAP control efficiency is 95 percent or greater at an existing affected source and 98 percent or greater at a new affected source; or
- (ii) The organic HAP emission rate based on coating solids applied is no more than 0.20 kg organic HAP per kg coating solids applied at an existing affected source and no more than 0.08 kg organic HAP per kg coating solids applied at a new affected source; or
- (iii) The organic HAP emission rate based on coating material applied is no more than 0.04 kg organic HAP per kg coating material applied at an existing affected source and no more than 0.016 kg organic HAP per kg coating material applied at a new affected source; or
- (iv) The organic HAP emitted during the month is less than the calculated allowable organic HAP as determined using paragraph (I) of this section.
- (k) Oxidizer compliance demonstration procedures. If you use an oxidizer to control emissions, you must show compliance by following the procedures in paragraph (k)(1) of this section. Use the applicable equations specified in paragraph (k)(2) of this section to convert the monitoring and other data into units of the selected compliance option in paragraph (e) through (h) of this section. Compliance is determined in accordance with paragraph (k)(3) of this section.
- (1) Demonstrate initial compliance through performance tests of capture efficiency and control device efficiency and continuing compliance through continuous monitoring of capture system and control device operating parameters as specified in paragraphs (k)(1)(i) through (vi) of this section:
- (i) Determine the oxidizer destruction efficiency using the procedure in §63.3360(e).
- (ii) Determine the capture system capture efficiency in accordance with §63.3360(f).
- (iii) Capture and control efficiency monitoring. Whenever a web coating line is operated, continuously monitor the operating parameters established in accordance with §63.3350(e) and (f) to ensure capture and control efficiency.
- (iv) If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied, organic HAP emission rate based on coating materials applied, or emission of less than the calculated allowable organic HAP, determine the mass of each coating material applied on the web coating line or group of web coating lines controlled by a common oxidizer during the month.

Avery Dennison MFD
Page 30 of 43
Lowell, Indiana
SPM 089-28616-00407

Permit Reviewer: Michael S. Brooks

(v) If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied, organic HAP emission rate based on coating material applied, or emission of less than the calculated allowable organic HAP, determine the organic HAP content of each coating material as-applied during the month following the procedure in §63.3360(c).

- (vi) If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied or emission of less than the calculated allowable organic HAP, determine the coating solids content of each coating material applied during the month following the procedure in §63.3360(d).
- (2) Convert the information obtained under paragraph (p)(1) of this section into the units of the selected compliance option using the calculation procedures specified in paragraphs (k)(2)(i) through (iv) of this section.
- (i) Control efficiency. Calculate the overall organic HAP control efficiency achieved using Equation 11 of this section
- (ii) Organic HAP emitted. Calculate the organic HAP emitted during the month using Equation 12 of this section
- (iii) Organic HAP emission rate based on coating solids applied. Calculate the organic HAP emission rate based on coating solids applied for each month using Equation 9 of this section.
- (iv) Organic HAP based on coating materials applied. Calculate the organic HAP emission rate based on coating material applied using Equation 10 of this section.
- (3) You are in compliance with the emission standards in §63.3320(b) if the oxidizer is operated such that the average operating parameter value is greater than the operating parameter value established in accordance with §63.3360(e) for each 3-hour period, and the capture system operating parameter is operated at an average value greater than or less than (as appropriate) the operating parameter value established in accordance with §63.3350(f); and
- (i) The overall organic HAP control efficiency is 95 percent or greater at an existing affected source and 98 percent or greater at a new affected source; or
- (ii) The organic HAP emission rate based on coating solids applied is no more than 0.20 kg organic HAP per kg coating solids applied at an existing affected source and no more than 0.08 kg organic HAP per kg coating solids applied at a new affected source; or
- (iii) The organic HAP emission rate based on coating material applied is no more than 0.04 kg organic HAP per kg coating material applied at an existing affected source and no more than 0.016 kg organic HAP per kg coating material applied at a new affected source; or
- (iv) The organic HAP emitted during the month is less than the calculated allowable organic HAP as determined using paragraph (I) of this section.
- (I) Monthly allowable organic HAP emissions. This paragraph provides the procedures and calculations for determining monthly allowable organic HAP emissions for use in demonstrating compliance in accordance with paragraph (d), (h), (i)(1)(x)(D), (i)(2)(xi)(D), or (k)(3)(iv) of this section. You will need to determine the amount of coating material applied at greater than or equal to 20 mass percent coating solids and the amount of coating material applied at less than 20 mass percent coating solids. The allowable organic HAP limit is then calculated based on coating material applied at greater than or equal to 20 mass percent coating solids complying with 0.2 kg organic HAP per kg coating solids at an existing affected source or 0.08 kg organic HAP per kg coating solids at a new affected source, and coating material applied at less than 20 mass percent coating solids complying with 4 mass percent organic HAP at an existing affected source and 1.6 mass-percent organic HAP at a new affected source as follows:

- (1) Determine the as-purchased mass of each coating material applied each month.
- (2) Determine the as-purchased coating solids content of each coating material applied each month in accordance with §63.3360(d)(1).
- (3) Determine the as-purchased mass fraction of each coating material which was applied at 20 mass percent or greater coating solids content on an as-applied basis.
- (4) Determine the total mass of each solvent, diluent, thinner, or reducer added to coating materials which were applied at less than 20 mass percent coating solids content on an as-applied basis each month.
- (5) Calculate the monthly allowable organic HAP emissions using Equation 13a of this section for an existing affected source:

$$H_{a} = 0.20 \left[ \sum_{i=1}^{p} M_{i} G_{i} C_{si} \right] + 0.04 \left[ \sum_{i=1}^{p} M_{i} (1 - G_{i}) + \sum_{j=1}^{q} M_{L_{i}} \right]$$
 Eq. 13a

Where:

H<sub>a</sub>= Monthly allowable organic HAP emissions, kg.

p = Number of different coating materials applied in a month.

M<sub>i</sub>= mass of as-purchased coating material, i, applied in a month, kg.

G<sub>i</sub>= Mass fraction of each coating material, i, which was applied at 20 mass percent or greater coating solids content, on an as-applied basis, kg/kg.

C<sub>si</sub>= Coating solids content of coating material, i, expressed as a mass fraction, kg/kg.

q = Number of different materials added to the coating material.

 $M_{Lj}$ = Mass of non-coating-solids-containing coating material, j, added to coating-solids-containing coating materials which were applied at less than 20 mass percent coating solids content, on an as-applied basis, in a month, kg.

or Equation 13b of this section for a new affected source:

$$H_a = 0.08 \left[ \sum_{i=1}^{p} M_i G_i C_{si} \right] + 0.016 \left[ \sum_{i=1}^{p} M_i (1 - G_i) + \sum_{j=1}^{q} M_{L_j} \right]$$
 Eq. 13b

Where:

H<sub>a</sub>= Monthly allowable organic HAP emissions, kg.

p = Number of different coating materials applied in a month.

M<sub>i</sub>= Mass of as-purchased coating material, i, applied in a month, kg.

Avery Dennison MFD
Page 32 of 43
Lowell, Indiana
SPM 089-28616-00407

Permit Reviewer: Michael S. Brooks

G<sub>i</sub>= Mass fraction of each coating material, i, which was applied at 20 mass percent or greater coating solids content, on an as-applied basis, kg/kg.

- Csi= Coating solids content of coating material, i, expressed as a mass fraction, kg/kg.
- q = Number of different materials added to the coating material.
- $M_{Lj}$ = Mass of non-coating-solids-containing coating material, j, added to coating-solids-containing coating materials which were applied at less than 20 mass percent coating solids content, on an as-applied basis, in a month, kg.
- (m) [Reserved]
- (n) Combinations of capture and control. If you operate more than one capture system, more than one control device, one or more never-controlled work stations, or one or more intermittently-controlled work stations, you must calculate organic HAP emissions according to the procedures in paragraphs (n)(1) through (4) of this section, and use the calculation procedures specified in paragraph (n)(5) of this section to convert the monitoring and other data into units of the selected control option in paragraphs (e) through (h) of this section. Use the procedures specified in paragraph (n)(6) of this section to demonstrate compliance.
- (1) Solvent recovery system using liquid-liquid material balance compliance demonstration. If you choose to comply by means of a liquid-liquid material balance for each solvent recovery system used to control one or more web coating lines, you must determine the organic HAP emissions for those web coating lines controlled by that solvent recovery system either:
- (i) In accordance with paragraphs (i)(1)(i) through (iii) and (v) through (vii) of this section, if the web coating lines controlled by that solvent recovery system have only always-controlled work stations; or
- (ii) In accordance with paragraphs (i)(1)(ii), (iii), (v), and (vi) and (o) of this section, if the web coating lines controlled by that solvent recovery system have one or more never-controlled or intermittently-controlled work stations.
- (2) Solvent recovery system using performance test compliance demonstration and CEMS. To demonstrate compliance through an initial test of capture efficiency, continuous monitoring of a capture system operating parameter, and a CEMS on each solvent recovery system used to control one or more web coating lines, you must:
- (i) For each capture system delivering emissions to that solvent recovery system, monitor the operating parameter established in accordance with §63.3350(f) to ensure capture system efficiency; and
- (ii) Determine the organic HAP emissions for those web coating lines served by each capture system delivering emissions to that solvent recovery system either:
- (A) In accordance with paragraphs (i)(2)(i) through (iii), (v), (vi), and (viii) of this section, if the web coating lines served by that capture and control system have only always-controlled work stations; or
- (B) In accordance with paragraphs (i)(2)(i) through (iii), (vi), and (o) of this section, if the web coating lines served by that capture and control system have one or more never-controlled or intermittently-controlled work stations.
- (3) Oxidizer. To demonstrate compliance through performance tests of capture efficiency and control device efficiency, continuous monitoring of capture system, and CPMS for control device operating parameters for each oxidizer used to control emissions from one or more web coating lines, you must:
- (i) Monitor the operating parameter in accordance with §63.3350(e) to ensure control device efficiency; and

Avery Dennison MFD Page 33 of 43 Lowell, Indiana SPM 089-28616-00407

Permit Reviewer: Michael S. Brooks

(ii) For each capture system delivering emissions to that oxidizer, monitor the operating parameter established in accordance with §63.3350(f) to ensure capture efficiency; and

- (iii) Determine the organic HAP emissions for those web coating lines served by each capture system delivering emissions to that oxidizer either:
- (A) In accordance with paragraphs (k)(1)(i) through (vi) of this section, if the web coating lines served by that capture and control system have only always-controlled work stations; or
- (B) In accordance with paragraphs (k)(1)(i) through (iii), (v), and (o) of this section, if the web coating lines served by that capture and control system have one or more never-controlled or intermittently-controlled work stations.
- (4) Uncontrolled coating lines. If you own or operate one or more uncontrolled web coating lines, you must determine the organic HAP applied on those web coating lines using Equation 6 of this section. The organic HAP emitted from an uncontrolled web coating line is equal to the organic HAP applied on that web coating line.
- (5) Convert the information obtained under paragraphs (n)(1) through (4) of this section into the units of the selected compliance option using the calculation procedures specified in paragraphs (n)(5)(i) through (iv) of this section.
- (i) Organic HAP emitted. Calculate the organic HAP emissions for the affected source for the month by summing all organic HAP emissions calculated according to paragraphs (n)(1), (2)(ii), (3)(iii), and (4) of this section.
- (ii) Coating solids applied. If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied or emission of less than the calculated allowable organic HAP, the owner or operator must determine the coating solids content of each coating material applied during the month following the procedure in §63.3360(d).
- (iii) Organic HAP emission rate based on coating solids applied. Calculate the organic HAP emission rate based on coating solids applied for each month using Equation 9 of this section.
- (iv) Organic HAP based on materials applied. Calculate the organic HAP emission rate based on material applied using Equation 10 of this section.
- (6) Compliance. The affected source is in compliance with the emission standards in §63.3320(b) for the month if all operating parameters required to be monitored under paragraphs (n)(1) through (3) of this section were maintained at the values established under §§63.3350 and 63.3360; and
- (i) The total mass of organic HAP emitted by the affected source based on coating solids applied is no more than 0.20 kg organic HAP per kg coating solids applied at an existing affected source and no more than 0.08 kg organic HAP per kg coating solids applied at a new affected source; or
- (ii) The total mass of organic HAP emitted by the affected source based on material applied is no more than 0.04 kg organic HAP per kg material applied at an existing affected source and no more than 0.016 kg organic HAP per kg material applied at a new affected source; or
- (iii) The total mass of organic HAP emitted by the affected source during the month is less than the calculated allowable organic HAP as determined using paragraph (I) of this section; or
- (iv) The total mass of organic HAP emitted by the affected source was not more than 5 percent of the total mass of organic HAP applied for the month at an existing affected source and no more than 2 percent of the total mass of organic HAP applied for the month at a new affected source. The total mass of organic HAP applied by the affected source in the month must be determined using Equation 6 of this section.

Avery Dennison MFD Page 34 of 43 Lowell, Indiana SPM 089-28616-00407

Permit Reviewer: Michael S. Brooks

(o) Intermittently-controlled and never-controlled work stations. If you have been expressly referenced to this paragraph by paragraphs (n)(1)(ii), (n)(2)(ii)(B), or (n)(3)(iii)(B) of this section for calculation procedures to determine organic HAP emissions for your intermittently-controlled and never-controlled work stations, you must:

- (1) Determine the sum of the mass of all coating materials as-applied on intermittently-controlled work stations operating in bypass mode and the mass of all coating materials as-applied on never-controlled work stations during the month.
- (2) Determine the sum of the mass of all coating materials as-applied on intermittently-controlled work stations operating in a controlled mode and the mass of all coating materials applied on always-controlled work stations during the month.
- (3) Liquid-liquid material balance compliance demonstration. For each web coating line or group of web coating lines for which you use the provisions of paragraph (n)(1)(ii) of this section, you must calculate the organic HAP emitted during the month using Equation 14 of this section:

$$\mathbf{H}_{e} = \left[\sum_{i=1}^{P} \mathbf{M}_{Ci} \mathbf{C}_{abi}\right] \left[1 - \frac{\mathbf{R}_{v}}{100}\right] + \left[\sum_{i=1}^{P} \mathbf{M}_{Bi} \mathbf{C}_{abi}\right] - \mathbf{M}_{vret} \qquad \text{Eq. 14}$$

Where:

H<sub>e</sub>= Total monthly organic HAP emitted, kg.

p = Number of different coating materials applied in a month.

M<sub>ci</sub>= Sum of the mass of coating material, i, as-applied on intermittently-controlled work stations operating in controlled mode and the mass of coating material, i, as-applied on always-controlled work stations, in a month, kg.

C<sub>ahi</sub>= Monthly average, as-applied, organic HAP content of coating material, i, expressed as a mass fraction, kg/kg.

R<sub>v</sub>= Organic volatile matter collection and recovery efficiency, percent.

 $M_{\text{Bi}}$ = Sum of the mass of coating material, i, as-applied on intermittently-controlled work stations operating in bypass mode and the mass of coating material, i, as-applied on never-controlled work stations, in a month, kg.

C<sub>ahi</sub>= Monthly average, as-applied, organic HAP content of coating material, i, expressed as a mass fraction, kg/kg.

M<sub>vret</sub>= Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg. The value of this term will be zero in all cases except where you choose to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in this section.

(4) Performance test to determine capture efficiency and control device efficiency. For each web coating line or group of web coating lines for which you use the provisions of paragraph (n)(2)(ii)(B) or (n)(3)(iii)(B) of this section, you must calculate the organic HAP emitted during the month using Equation 15 of this section:

$$\mathbf{H}_{e} = \left[\sum_{i=1}^{P} \mathbf{M}_{Ci} \mathbf{C}_{abi}\right] \left[1 - \frac{\mathbf{R}}{100}\right] + \left[\sum_{i=1}^{P} \mathbf{M}_{Bi} \mathbf{C}_{abi}\right] - \mathbf{M}_{wret} \qquad \text{Eq. 15}$$

Where:

H<sub>e</sub>= Total monthly organic HAP emitted, kg.

p = Number of different coating materials applied in a month.

M<sub>ci</sub>= Sum of the mass of coating material, i, as-applied on intermittently-controlled work stations operating in controlled mode and the mass of coating material, i, as-applied on always-controlled work stations, in a month, kg.

C<sub>ahi</sub>= Monthly average, as-applied, organic HAP content of coating material, i, expressed as a mass fraction, kg/kg.

R = Overall organic HAP control efficiency, percent.

M<sub>Bi</sub>= Sum of the mass of coating material, i, as-applied on intermittently-controlled work stations operating in bypass mode and the mass of coating material, i, as-applied on never-controlled work stations, in a month, kg.

C<sub>ahi</sub>= Monthly average, as-applied, organic HAP content of coating material, i, expressed as a mass fraction, kg/kg.

M<sub>vret</sub>= Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg. The value of this term will be zero in all cases except where you choose to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in this section.

- (p) Always-controlled work stations with more than one capture and control system. If you operate more than one capture system or more than one control device and only have always-controlled work stations, then you are in compliance with the emission standards in §63.3320(b)(1) for the month if for each web coating line or group of web coating lines controlled by a common control device:
- (1) The volatile matter collection and recovery efficiency as determined by paragraphs (i)(1)(i), (iii), (v), and (vi) of this section is at least 95 percent at an existing affected source and at least 98 percent at a new affected source; or
- (2) The overall organic HAP control efficiency as determined by paragraphs (i)(2)(i) through (iv) of this section for each web coating line or group of web coating lines served by that control device and a common capture system is at least 95 percent at an existing affected source and at least 98 percent at a new affected source; or
- (3) The overall organic HAP control efficiency as determined by paragraphs (k)(1)(i) through (iii) and (k)(2)(i) of this section for each web coating line or group of web coating lines served by that control device and a common capture system is at least 95 percent at an existing affected source and at least 98 percent at a new affected source.

#### Notifications, Reports, and Records

§ 63.3400 What notifications and reports must I submit?

Avery Dennison MFD Page 36 of 43 Lowell, Indiana SPM 089-28616-00407

Permit Reviewer: Michael S. Brooks

(a) Each owner or operator of an affected source subject to this subpart must submit the reports specified in paragraphs (b) through (g) of this section to the Administrator:

- (b) You must submit an initial notification as required by §63.9(b).
- (1) Initial notification for existing affected sources must be submitted no later than 1 year before the compliance date specified in §63.3330(a).
- (2) Initial notification for new and reconstructed affected sources must be submitted as required by §63.9(b).
- (3) For the purpose of this subpart, a title V or part 70 permit application may be used in lieu of the initial notification required under §63.9(b), provided the same information is contained in the permit application as required by §63.9(b) and the State to which the permit application has been submitted has an approved operating permit program under part 70 of this chapter and has received delegation of authority from the EPA to implement and enforce this subpart.
- (4) If you are using a permit application in lieu of an initial notification in accordance with paragraph (b)(3) of this section, the permit application must be submitted by the same due date specified for the initial notification.
- (c) You must submit a semiannual compliance report according to paragraphs (c)(1) and (2) of this section.
- (1) Compliance report dates.
- (i) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.3330 and ending on June 30 or December 31, whichever date is the first date following the end of the calendar half immediately following the compliance date that is specified for your affected source in §63.3330.
- (ii) The first compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the calendar half immediately following the compliance date that is specified for your affected source in §63.3330.
- (iii) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.
- (iv) Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.
- (v) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and the permitting authority has established dates for submitting semiannual reports pursuant to §70.6(a)(3)(iii)(A) or §71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (c)(1)(i) through (iv) of this section.
- (2) The compliance report must contain the information in paragraphs (c)(2)(i) through (vi) of this section:
- (i) Company name and address.
- (ii) Statement by a responsible official with that official's name, title, and signature certifying the accuracy of the content of the report.
- (iii) Date of report and beginning and ending dates of the reporting period.

Avery Dennison MFD Page 37 of 43
Lowell, Indiana SPM 089-28616-00407

Permit Reviewer: Michael S. Brooks

(iv) If there are no deviations from any emission limitations (emission limit or operating limit) that apply to you, a statement that there were no deviations from the emission limitations during the reporting period, and that no CMS was inoperative, inactive, malfunctioning, out-of-control, repaired, or adjusted.

- (v) For each deviation from an emission limitation (emission limit or operating limit) that applies to you and that occurs at an affected source where you are not using a CEMS to comply with the emission limitations in this subpart, the compliance report must contain the information in paragraphs (c)(2)(i) through (iii) of this section, and:
- (A) The total operating time of each affected source during the reporting period.
- (B) Information on the number, duration, and cause of deviations (including unknown cause), if applicable, and the corrective action taken.
- (C) Information on the number, duration, and cause for CPMS downtime incidents, if applicable, other than downtime associated with zero and span and other calibration checks.
- (vi) For each deviation from an emission limit occurring at an affected source where you are using a CEMS to comply with the emission limit in this subpart, you must include the information in paragraphs (c)(2)(i) through (iii) and (vi)(A) through (J) of this section.
- (A) The date and time that each malfunction started and stopped.
- (B) The date and time that each CEMS and CPMS, if applicable, was inoperative except for zero (low-level) and high-level checks.
- (C) The date and time that each CEMS and CPMS, if applicable, was out-of-control, including the information in §63.8(c)(8).
- (D) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.
- (E) A summary of the total duration (in hours) of each deviation during the reporting period and the total duration of each deviation as a percent of the total source operating time during that reporting period.
- (F) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.
- (G) A summary of the total duration (in hours) of CEMS and CPMS downtime during the reporting period and the total duration of CEMS and CPMS downtime as a percent of the total source operating time during that reporting period.
- (H) A breakdown of the total duration of CEMS and CPMS downtime during the reporting period into periods that are due to monitoring equipment malfunctions, nonmonitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and other unknown causes.
- (I) The date of the latest CEMS and CPMS certification or audit.
- (J) A description of any changes in CEMS, CPMS, or controls since the last reporting period.
- (d) You must submit a Notification of Performance Tests as specified in §§63.7 and 63.9(e) if you are complying with the emission standard using a control device and you are required to conduct a performance test of the control device. This notification and the site-specific test plan required under §63.7(c)(2) must identify the operating parameters to be monitored to ensure that the capture efficiency of the capture system

Avery Dennison MFD Page 38 of 43 Lowell, Indiana SPM 089-28616-00407

Permit Reviewer: Michael S. Brooks

and the control efficiency of the control device determined during the performance test are maintained. Unless EPA objects to the parameter or requests changes, you may consider the parameter approved.

- (e) You must submit a Notification of Compliance Status as specified in §63.9(h).
- (f) You must submit performance test reports as specified in §63.10(d)(2) if you are using a control device to comply with the emission standard and you have not obtained a waiver from the performance test requirement or you are not exempted from this requirement by §63.3360(b). The performance test reports must be submitted as part of the notification of compliance status required in §63.3400(e).
- (g) You must submit startup, shutdown, and malfunction reports as specified in §63.10(d)(5), except that the provisions in subpart A of this part pertaining to startups, shutdowns, and malfunctions do not apply unless a control device is used to comply with this subpart.
- (1) If actions taken by an owner or operator during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are not consistent with the procedures specified in the affected source's SSMP required by §63.6(e)(3), the owner or operator must state such information in the report. The startup, shutdown, or malfunction report must consist of a letter containing the name, title, and signature of the responsible official who is certifying its accuracy and must be submitted to the Administrator.
- (2) Separate startup, shutdown, and malfunction reports are not required if the information is included in the report specified in paragraph (c)(2)(vi) of this section.

#### § 63.3410 What records must I keep?

- (a) Each owner or operator of an affected source subject to this subpart must maintain the records specified in paragraphs (a)(1) and (2) of this section on a monthly basis in accordance with the requirements of §63.10(b)(1):
- (1) Records specified in §63.10(b)(2) of all measurements needed to demonstrate compliance with this standard, including:
- (i) Continuous emission monitor data in accordance with the requirements of §63.3350(d);
- (ii) Control device and capture system operating parameter data in accordance with the requirements of §63.3350(c), (e), and (f);
- (iii) Organic HAP content data for the purpose of demonstrating compliance in accordance with the requirements of §63.3360(c);
- (iv) Volatile matter and coating solids content data for the purpose of demonstrating compliance in accordance with the requirements of §63.3360(d);
- (v) Overall control efficiency determination using capture efficiency and control device destruction or removal efficiency test results in accordance with the requirements of §63.3360(e) and (f); and
- (vi) Material usage, organic HAP usage, volatile matter usage, and coating solids usage and compliance demonstrations using these data in accordance with the requirements of §63.3370(b), (c), and (d).
- (2) Records specified in §63.10(c) for each CMS operated by the owner or operator in accordance with the requirements of §63.3350(b).
- (b) Each owner or operator of an affected source subject to this subpart must maintain records of all liquid-liquid material balances performed in accordance with the requirements of §63.3370. The records must be maintained in accordance with the requirements of §63.10(b).

# **Delegation of Authority**

# § 63.3420 What authorities may be delegated to the States?

- (a) In delegating implementation and enforcement authority to a State under 40 CFR part 63, subpart E, the authorities contained in paragraph (b) of this section must be retained by the Administrator and not transferred to a State.
- (b) Authority which will not be delegated to States: §63.3360(c), approval of alternate test method for organic HAP content determination; §63.3360(d), approval of alternate test method for volatile matter determination.

# Table 1 to Subpart JJJJ of Part 63—Operating Limits if Using Add-On Control Devices and Capture System

If you are required to comply with operating limits by §63.3321, you must comply with the applicable operating limits in the following table:

For the following device:	You must meet the following operating limit:	And you must demonstrate continuous compliance with operating limits by:
1. Thermal oxidizer	temperature limit established according to §63.3360(e)(3)(i)	i. Collecting the combustion temperature data according to §63.3350(e)(9); ii. Reducing the data to 3-hour block averages; and iii. Maintain the 3-hour average combustion temperature at or above the temperature limit.
2. Catalytic oxidizer	catalyst bed in any 3-hour period must not fall below the combustion temperature limit established according to §63.3360(e)(3)(ii)	i. Collecting the catalyst bed inlet temperature data according to §63.3350(e)(9); ii. Reducing the data to 3-hour block averages; and iii. Maintain the 3-hour average catalyst bed inlet temperature at or above the temperature limit.
	must not fall below the limit established according to §63.3360(e)(3)(ii)	i. Collecting the catalyst bed inlet and outlet temperature data according to §63.3350(e)(9); ii. Reducing the data to 3-hour block averages; and iii. Maintain the 3-hour average temperature rise across the catalyst bed at or above the limit.
3. Emission capture system		Conduct monitoring according to the plan (§63.3350(f)(3)).

# Table 2 to Subpart JJJJ of Part 63—Applicability of 40 CFR Part 63 General Provisions to Subpart JJJJ

You must comply with the applicable General Provisions requirements according to the following table:

General provisions reference	Applicable to subpart JJJJ	Explanation
§63.1(a)(1)–(4)	Yes.	
§63.1(a)(5)	No	Reserved.
§63.1(a)(6)–(8)	Yes.	
§63.1(a)(9)	No	Reserved.
§63.1(a)(10)–(14)	Yes.	
§63.1(b)(1)	No	Subpart JJJJ specifies applicability.
§63.1(b)(2)–(3)	Yes.	
§63.1(c)(1)	Yes.	
§63.1(c)(2)	No	Area sources are not subject to emission standards of subpart JJJJ.
§63.1(c)(3)	No	Reserved.
§63.1(c)(4)	Yes.	
§63.1(c)(5)	Yes.	
§63.1(d)	No	Reserved.
§63.1(e)	Yes.	
§63.1(e)(4)	No.	
§63.2	Yes	Additional definitions in subpart JJJJ.
§63.3(a)–(c)	Yes.	
§63.4(a)(1)–(3)	Yes.	
§63.4(a)(4)	No	Reserved.
§63.4(a)(5)	Yes.	
§63.4(b)–(c)	Yes.	
§63.5(a)(1)–(2)	Yes.	
§63.5(b)(1)	Yes.	
§63.5(b)(2)	No	Reserved.
§63.5(b)(3)–(6)	Yes.	
§63.5(c)	No	Reserved.

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§63.5(d)	Yes.	
§63.5(e)	Yes.	
§63.5(f)	Yes.	
§63.6(a)	Yes	Applies only when capture and control system is used to comply with the standard.
§63.6(b)(1)–(5)	No	
§63.6(b)(6)	No	Reserved.
§63.6(b)(7)	Yes.	
§63.6(c)(1)–(2)	Yes.	
§63.6(c)(3)–(4)	No	Reserved.
§63.6(c)(5)	Yes.	
§63.6(d)	No	Reserved.
§63.6(e)	Yes	Provisions pertaining to SSMP, and CMS do not apply unless an add-on control system is used to comply with the emission limitations.
§63.6(f)	Yes.	
§63.6(g)	Yes.	
§63.6(h)	No	Subpart JJJJ does not require continuous opacity monitoring systems (COMS).
§63.6(i)(1)–(14)	Yes.	
§63.6(i)(15)	No	Reserved.
§63.6(i)(16)	Yes.	
§63.6(j)	Yes.	
§63.7	Yes.	
§63.8(a)(1)–(2)	Yes.	
§63.8(a)(3)	No	Reserved.
§63.8(a)(4)	No.	
§63.8(b)	Yes.	
§63.8(c)(1)–(3)	Yes	§63.8(c)(1)(i) & (ii) only apply if you use capture and control systems and are required to have a start-up, shutdown, and malfunction plan.
§63.8(c)(4)	Yes.	
§63.8(c)(5)	No	Subpart JJJJ does not require COMS.

§63.8(c)(6)–(c)(8)	Yes	Provisions for COMS are not applicable.
§63.8(d)–(f)	Yes	§63.8(f)(6) only applies if you use CEMS.
§63.8(g)	Yes	Only applies if you use CEMS.
§63.9(a)	Yes.	
§63.9(b)(1)	Yes.	
§63.9(b)(2)	Yes	Except §63.3400(b)(1) requires submittal of initial notification for existing affected sources no later than 1 year before compliance date.
§63.9(b)(3)–(5)	Yes.	
§63.9(c)–(e)	Yes.	
§63.9(f)	No	Subpart JJJJ does not require opacity and visible emissions observations.
§63.9(g)	Yes	Provisions for COMS are not applicable.
§63.9(h)(1)–(3)	Yes.	
§63.9(h)(4)	No	Reserved.
§63.9(h)(5)–(6)	Yes.	
§63.9(i)	Yes.	
§63.9(j)	Yes.	
§63.10(a)	Yes.	
§63.10(b)(1)–(3)	Yes	§63.10(b)(2)(i) through (v) only apply if you use a capture and control system.
§63.10(c)(1)	Yes.	
§63.10(c)(2)–(4)	No	Reserved.
§63.10(c)(5)–(8)	Yes.	
§63.10(c)(9)	No	Reserved.
§63.10(c)(10)–(15)	Yes.	
§63.10(d)(1)–(2)	Yes.	
§63.10(d)(3)	No	Subpart JJJJ does not require opacity and visible emissions observations.
§63.10(d)(4)–(5)	Yes.	
§63.10(e)(1)–(2)	Yes	Provisions for COMS are not applicable.
§63.10(e)(3)–(4)	No.	
§63.10(f)	Yes.	

Avery Dennison MFD Lowell, Indiana Permit Reviewer: Michael S. Brooks Page 43 of 43 SPM 089-28616-00407

§63.11	No.	
§63.12	Yes.	
§63.13	Yes.	
§63.14		Subpart JJJJ includes provisions for alternative ASME test methods that are incorporated by reference.
§63.15	Yes.	

# PART 70 OPERATING PERMIT RENEWAL OFFICE OF AIR QUALITY

Avery Dennison MFD 270 West Meadow Place Lowell, Indiana 46356

# **Attachment B**

**Title 40: Protection of Environment** 

PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

Subpart RR—Standards of Performance for Pressure Sensitive Tape and Label Surface Coating Operations

**Significant Permit Modification** 

089-28616-00407

#### Title 40: Protection of Environment

PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

# **Subpart RR—Standards of Performance for Pressure Sensitive Tape and Label Surface Coating Operations**

Source: 48 FR 48375, Oct. 18, 1983, unless otherwise noted.

#### § 60.440 Applicability and designation of affected facility.

- (a) The affected facility to which the provisions of this subpart apply is each coating line used in the manufacture of pressure sensitive tape and label materials.
- (b) Any affected facility which inputs to the coating process 45 Mg (50 tons) of VOC or less per 12 month period is not subject to the emission limits of §60.442(a), however, the affected facility is subject to the requirements of all other applicable sections of this subpart. If the amount of VOC input exceeds 45 Mg (50 tons) per 12 month period, the coating line will become subject to §60.442(a) and all other sections of this subpart.
- (c) This subpart applies to any affected facility which begins construction, modification, or reconstruction after December 30, 1980.

[48 FR 48375, Oct. 18, 1983, as amended at 65 FR 61761, Oct. 17, 2000]

#### § 60.441 Definitions and symbols.

(a) Except as otherwise required by the context, terms used in this subpart are defined in the Act, in subpart A of this part, or in this section as follows:

Coating applicator means an apparatus used to apply a surface coating to a continuous web.

Coating line means any number or combination of adhesive, release, or precoat coating applicators, flashoff areas, and ovens which coat a continuous web, located between a web unwind station and a web rewind station, to produce pressure sensitive tape and label materials.

Coating solids applied means the solids content of the coated adhesive, release, or precoat as measured by Method 24.

Flashoff area means the portion of a coating line after the coating applicator and usually before the oven entrance.

Fugitive volatile organic compounds means any volatile organic compounds which are emitted from the coating applicator and flashoff areas and are not emitted in the oven.

Hood or enclosure means any device used to capture fugitive volatile organic compounds.

Oven means a chamber which uses heat or irradiation to bake, cure, polymerize, or dry a surface coating.

*Precoat* means a coating operation in which a coating other than an adhesive or release is applied to a surface during the production of a pressure sensitive tape or label product.

Solvent applied in the coating means all organic solvent contained in the adhesive, release, and precoat formulations that is metered into the coating applicator from the formulation area.

Total enclosure means a structure or building around the coating applicator and flashoff area or the entire coating line for the purpose of confining and totally capturing fugitive VOC emissions.

VOC means volatile organic compound.

(b) All symbols used in this subpart not defined below are given meaning in the Act or in subpart A of this part.

a=the gas stream vents exiting the emission control device.

b=the gas stream vents entering the emission control device.

C<sub>aj</sub>=the concentration of VOC (carbon equivalent) in each gas stream (j) exiting the emission control device, in parts per million by volume.

C<sub>bi</sub>=the concentration of VOC (carbon equivalent) in each gas stream (i) entering the emission control device, in parts per million by volume.

C<sub>fk</sub>=the concentration of VOC (carbon equivalent) in each gas stream (k) emitted directly to the atmosphere, in parts per million by volume.

G=the calculated weighted average mass (kg) of VOC per mass (kg) of coating solids applied each calendar month.

M<sub>ci</sub>=the total mass (kg) of each coating (i) applied during the calendar month as determined from facility records.

M<sub>r</sub>=the total mass (kg) of solvent recovered for a calendar month.

 $Q_{aj}$ =the volumetric flow rate of each effluent gas stream (j) exiting the emission control device, in dry standard cubic meters per hour.

Q<sub>bi</sub>=the volumetric flow rate of each effluent gas stream (i) entering the emission control device, in dry standard cubic meters per hour.

 $Q_{fk}$ =the volumetric flow rate of each effluent gas stream (k) emitted to the atmosphere, in dry standard cubic meters per hour.

R=the overall VOC emission reduction achieved for a calendar month (in percent).

R<sub>q</sub>=the required overall VOC emission reduction (in percent).

W<sub>oi</sub>=the weight fraction of organics applied of each coating (i) applied during a calendar month as determined from Method 24 or coating manufacturer's formulation data.

 $W_{si}$ =the weight fraction of solids applied of each coating (i) applied during a calendar month as determined from Method 24 or coating manufacturer's formulation data.

[48 FR 48375, Oct. 18, 1983, as amended at 65 FR 61761, Oct. 17, 2000]

# § 60.442 Standard for volatile organic compounds.

- (a) On and after the date on which the performance test required by §60.8 has been completed each owner or operator subject to this subpart shall:
- (1) Cause the discharge into the atmosphere from an affected facility not more than 0.20 kg VOC/kg of coating solids applied as calculated on a weighted average basis for one calendar month; or
- (2) Demonstrate for each affected facility;
- (i) A 90 percent overall VOC emission reduction as calculated over a calendar month; or
- (ii) The percent overall VOC emission reduction specified in §60.443(b) as calculated over a calendar month.

# § 60.443 Compliance provisions.

- (a) To determine compliance with §60.442 the owner or operator of the affected facility shall calculate a weighted average of the mass of solvent used per mass of coating solids applied for a one calendar month period according to the following procedures:
- (1) Determine the weight fraction of organics and the weight fraction of solids of each coating applied by using Reference Method 24 or by the coating manufacturer's formulation data.
- (2) Compute the weighted average by the following equation:

$$G = \frac{\sum\limits_{i=1}^{n} W_{oi} M_{ci}}{\sum\limits_{i=1}^{n} W_{si} M_{ci}}$$

- (3) For each affected facility where the value of G is less than or equal to 0.20 kg VOC per kg of coating solids applied, the affected facility is in compliance with §60.442(a)(1).
- (b) To determine compliance with §60.442(a)(2), the owner or operator shall calculate the required overall VOC emission reduction according to the following equation:

$$R_q = \frac{G - 0.20}{G} \times 100$$

If  $R_q$  is less than or equal to 90 percent, then the required overall VOC emission reduction is  $R_q$ . If  $R_q$  is greater than 90 percent, then the required overall VOC emission reduction is 90 percent.

(c) Where compliance with the emission limits specified in §60.442(a)(2) is achieved through the use of a solvent recovery system, the owner or operator shall determine the overall VOC emission reduction for a one calendar month period by the following equation:

$$R = \sum_{i=1}^{n} \frac{M_r}{W_{oi} M_{oi}} \times 100$$

Avery Dennison MFD
Page 5 of 8
Lowell, Indiana
SPM 089-28616-00407

Permit Reviewer: Michael S. Brooks

If the R value is equal to or greater than the  $R_q$  value specified in paragraph (b) of this section, then compliance with  $\S60.442(a)(2)$  is demonstrated.

- (d) Where compliance with the emission limit specified in §60.442(a)(2) is achieved through the use of a solvent destruction device, the owner or operator shall determine calendar monthly compliance by comparing the monthly required overall VOC emission reduction specified in paragraph (b) of this section to the overall VOC emission reduction demonstrated in the most recent performance test which complied with §60.442(a)(2). If the monthly required overall VOC emission reduction is less than or equal to the overall VOC reduction of the most recent performance test, the affected facility is in compliance with §60.442(a)(2).
- (e) Where compliance with §60.442(a)(2) is achieved through the use of a solvent destruction device, the owner or operator shall continuously record the destruction device combustion temperature during coating operations for thermal incineration destruction devices or the gas temperature upstream and downstream of the incinerator catalyst bed during coating operations for catalytic incineration destruction devices. For thermal incineration destruction devices the owner or operator shall record all 3-hour periods (during actual coating operations) during which the average temperature of the device is more than 28 °C (50 °F) below the average temperature of the device during the most recent performance test complying with §60.442(a)(2). For catalytic incineration destruction devices, the owner or operator shall record all 3-hour periods (during actual coating operations) during which the average temperature of the device immediately before the catalyst bed is more than 28 °C (50 °F) below the average temperature of the device during the most recent performance test complying with §60.442(a)(2), and all 3-hour periods (during actual coating operations) during which the average temperature difference across the catalyst bed is less than 80 percent of the average temperature difference during the most recent performance test complying with §60.442(a)(2).
- (f) After the initial performance test required for all affected facilities under §60.8, compliance with the VOC emission limitation and percentage reduction requirements under §60.442 is based on the average emission reduction for one calendar month. A separate compliance test is completed at the end of each calendar month after the initial performance test, and a new calendar month's average VOC emission reduction is calculated to show compliance with the standard.
- (g) If a common emission control device is used to recover or destroy solvent from more than one affected facility, the performance of that control device is assumed to be equal for each of the affected facilities. Compliance with §60.442(a)(2) is determined by the methods specified in paragraphs (c) and (d) of this section and is performed simultaneously on all affected facilities.
- (h) If a common emission control device is used to recover solvent from an existing facility (or facilities) as well as from an affected facility (or facilities), the overall VOC emission reduction for the affected facility (or facilities), for the purpose of compliance, shall be determined by the following procedures:
- (1) The owner or operator of the existing facility (or facilities) shall determine the mass of solvent recovered for a calendar month period from the existing facility (or facilities) prior to the connection of the affected facility (or facilities) to the emission control device.
- (2) The affected facility (or facilities) shall then be connected to the emission control device.
- (3) The owner or operator shall determine the total mass of solvent recovered from both the existing and affected facilities over a calendar month period. The mass of solvent determined in paragraph (h)(1) of this section from the existing facility shall be subtracted from the total mass of recovered solvent to obtain the mass of solvent recovered from the affected facility (or facilities). The overall VOC emission reduction of the affected facility (or facilities) can then be determined as specified in paragraph (c) of this section.
- (i) If a common emission control device(s) is used to destruct solvent from an existing facility (or facilities) as well as from an affected facility (or facilities), the overall VOC emission reduction for the

Avery Dennison MFD

Page 6 of 8

Lowell, Indiana

SPM 089-28616-00407

Permit Reviewer: Michael S. Brooks

affected facility (or facilities), for the purpose of compliance, shall be determined by the following procedures:

- (1) The owner or operator shall operate the emission control device with both the existing and affected facilities connected.
- (2) The concentration of VOC (in parts per million by volume) after the common emission control device shall be determined as specified in §60.444(c). This concentration is used in the calculation of compliance for both the existing and affected facilities.
- (3) The volumetric flow out of the common control device attributable to the affected facility (or facilities) shall be calculated by first determining the ratio of the volumetric flow entering the common control device attributable to the affected facility (facilities) to the total volumetric flow entering the common control device from both existing and affected facilities. The multiplication of this ratio by the total volumetric flow out of the common control device yields the flow attributable to the affected facility (facilities). Compliance is determined by the use of the equation specified in §60.444(c).
- (j) Startups and shutdowns are normal operation for this source category. Emissions from these operations are to be included when determining if the standard specified at §60.442(a)(2) is being attained.

[48 FR 48375, Oct. 18, 1983, as amended at 65 FR 61761, Oct. 17, 2000]

## § 60.444 Performance test procedures.

- (a) The performance test for affected facilities complying with §60.442 without the use of add-on controls shall be identical to the procedures specified in §60.443(a).
- (b) The performance test for affected facilities controlled by a solvent recovery device shall be conducted as follows:
- (1) The performance test shall be a one calendar month test and not the average of three runs as specified in §60.8(f).
- (2) The weighted average mass of VOC per mass of coating solids applied for a one calendar month period shall be determined as specified in §60.443(a) (1) and (2).
- (3) Calculate the required percent overall VOC emission reduction as specified in §60.443(b).
- (4) Inventory VOC usage and VOC recovery for a one calendar month period.
- (5) Determine the percent overall VOC emission reduction as specified in §60.443(c).
- (c) The performance test for affected facilities controlled by a solvent destruction device shall be conducted as follows:
- (1) The performance of the solvent destruction device shall be determined by averaging the results of three test runs as specified in §60.8(f).
- (2) Determine for each affected facility prior to each test run the weighted average mass of VOC per mass of coating solids applied being used at the facility. The weighted average shall be determined as specified in  $\S60.443(a)$ . In this application the quantities of  $W_{oi}$ ,  $W_{si}$ , and  $M_{ci}$  shall be determined for the time period of each test run and not a calendar month as specified in  $\S60.441$ .

Lowell, Indiana Permit Reviewer: Michael S. Brooks

- (3) Calculate the required percent overall VOC emission reduction as specified in §60.443(b).
- (4) Determine the percent overall VOC emission reduction of the solvent destruction device by the following equation and procedures:

$$R = \frac{\frac{1}{1} - Q_{1}C_{1} - \frac{1}{1} - Q_{2}C_{2}}{\frac{1}{1} - Q_{2}C_{3} - \frac{1}{1} -$$

Avery Dennison MFD

- (i) The owner or operator of the affected facility shall construct the overall VOC emission reduction system so that all volumetric flow rates and total VOC emissions can be accurately determined by the applicable test methods and procedures specified in §60.446(b).
- (ii) The owner or operator of an affected facility shall construct a temporary total enclosure around the coating line applicator and flashoff area during the performance test for the purpose of capturing fugitive VOC emissions. If a permanent total enclosure exists in the affected facility prior to the performance test and the Administrator is satisfied that the enclosure is totally capturing fugitive VOC emissions, then no additional total enclosure will be required for the performance test.
- (iii) For each affected facility where the value of R is greater than or equal to the value of  $R_q$  calculated in  $\S60.443(b)$ , compliance with  $\S60.442(a)(2)$  is demonstrated.

# § 60.445 Monitoring of operations and recordkeeping.

- (a) The owner or operator of an affected facility subject to this subpart shall maintain a calendar month record of all coatings used and the results of the reference test method specified in §60.446(a) or the manufacturer's formulation data used for determining the VOC content of those coatings.
- (b) The owner or operator of an affected facility controlled by a solvent recovery device shall maintain a calendar month record of the amount of solvent applied in the coating at each affected facility.
- (c) The owner or operator of an affected facility controlled by a solvent recovery device shall install, calibrate, maintain, and operate a monitoring device for indicating the cumulative amount of solvent recovered by the device over a calendar month period. The monitoring device shall be accurate within ±2.0 percent. The owner or operator shall maintain a calendar month record of the amount of solvent recovered by the device.
- (d) The owner or operator of an affected facility operating at the conditions specified in §60.440(b) shall maintain a 12 month record of the amount of solvent applied in the coating at the facility.
- (e) The owner or operator of an affected facility controlled by a thermal incineration solvent destruction device shall install, calibrate, maintain, and operate a monitoring device which continuously indicates and records the temperature of the solvent destruction device's exhaust gases. The monitoring device shall have an accuracy of the greater of  $\pm 0.75$  percent of the temperature being measured expressed in degrees Celsius or  $\pm 2.5$  °C.
- (f) The owner or operator of an affected facility controlled by a catalytic incineration solvent destruction device shall install, calibrate, maintain, and operate a monitoring device which continuously indicates and records the gas temperature both upstream and downstream of the catalyst bed.
- (g) The owner or operator of an affected facility controlled by a solvent destruction device which uses a hood or enclosure to capture fugitive VOC emissions shall install, calibrate, maintain, and operate a monitoring device which continuously indicates that the hood or enclosure is operating. No continuous monitor shall be required if the owner or operator can demonstrate that the hood or enclosure system is interlocked with the affected facility's oven recirculation air system.

Avery Dennison MFD
Page 8 of 8
Lowell, Indiana
SPM 089-28616-00407

Permit Reviewer: Michael S. Brooks

(h) Records of the measurements required in §§60.443 and 60.445 must be retained for at least two years following the date of the measurements.

# § 60.446 Test methods and procedures.

- (a) The VOC content per unit of coating solids applied and compliance with §60.422(a)(1) shall be determined by either Method 24 and the equations specified in §60.443 or by manufacturers' formulation data. In the event of any inconsistency between a Method 24 test and manufacturers' formulation data, the Method 24 test will govern. The Administrator may require an owner or operator to perform Method 24 tests during such months as he deems appropriate. For Method 24, the coating sample must be a one liter sample taken into a one liter container at a point where the sample will be representative of the coating applied to the web substrate.
- (b) Method 25 shall be used to determine the VOC concentration, in parts per million by volume, of each effluent gas stream entering and exiting the solvent destruction device or its equivalent, and each effluent gas stream emitted directly to the atmosphere. Methods 1, 2, 3, and 4 shall be used to determine the sampling location, volumetric flowrate, molecular weight, and moisture of all sampled gas streams. For Method 25, the sampling time for each of three runs must be at least 1 hour. The minimum sampling volume must be 0.003 dscm except that shorter sampling times or smaller volumes, when necessitated by process variables or other factors, may be approved by the Administrator.
- (c) If the owner or operator can demonstrate to the Administrator's satisfaction that testing of representative stacks yields results comparable to those that would be obtained by testing all stacks, the Administrator will approve testing of representative stacks on a case-by-case basis.

[48 FR 48375, Oct. 18, 1983, as amended at 65 FR 61761, Oct. 17, 2000]

#### § 60.447 Reporting requirements.

- (a) For all affected facilities subject to compliance with §60.442, the performance test data and results from the performance test shall be submitted to the Administrator as specified in §60.8(a) of the General Provisions (40 CFR part 60, subpart A).
- (b) Following the initial performance test, the owner or operator of each affected facility shall submit quarterly reports to the Administrator of exceedances of the VOC emission limits specified in §60.442. If no such exceedances occur during a particular quarter, a report stating this shall be submitted to the Administrator semiannually.
- (c) The owner or operator of each affected facility shall also submit reports at the frequency specified in §60.7(c) when the incinerator temperature drops as defined under §60.443(e). If no such periods occur, the owner or operator shall state this in the report.
- (d) The requirements of this subsection remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such States. In that event, affected sources within the State will be relieved of the obligation to comply with this subsection, provided that they comply with the requirements established by the State.

[48 FR 48375, Oct. 18, 1983, as amended at 55 FR 51383, Dec. 13, 1990]

# **Indiana Department of Environmental Management**

Office of Air Quality

# Addendum to the Technical Support Document for a Part 70 Significant Permit Modification

Source Name: Avery Dennison MFD

Source Location: 270 West Meadow Place, Lowell, IN 46356

County: Lake SIC Code: 3089

Significant Permit Modification No.: 089-28616-00407
Permit Reviewer: Michael S. Brooks

On February 16, 2010, the Office of Air Quality (OAQ) had a notice published in The Post Tribune in Merrillville in Indiana and The Times in Munster in Indiana, stating that Avery Dennison MFD had applied for a Part 70 permit modification for a stationary vinyl coating operation. The notice also stated that OAQ proposed to issue a permit modification for this operation and provided information on how the public could review the proposed modification and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit modification should be issued as proposed.

Changes to the permit are noted as follows: struck language has been deleted; **bold** language has been added. The Table of Contents has been modified to reflect these changes. No changes have been made to the TSD because the OAQ prefers that the Technical Support Document reflect the permit that was on public notice.

#### Comment #1

Avery Dennison requests testing of the units after the backup thermal oxidizers have been online for a specific amount of time.

# **Response to Comment #1**

After consideration and review IDEM has modified the testing requirements as follows:

# D.1.6 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

- (a) The Permittee shall conduct performance tests to determine the VOC capture and destruction efficiencies of thermal oxidizer C-1. This test shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted using methods approved by the Commissioner and in accordance with Section C Performance Testing.
- (b) No later than 180 days following issuance of Significant Permit Modification No. 089-28616-00407, When the backup thermal oxidizers for rollcoating lines L-1 and L-2 operate for 500 hours per twelve (12) consecutive month period, respectively, the Permittee shall, in no later than ninety (90) days, conduct performance tests to determine the VOC capture and destruction efficiencies of one (1) of the two (2) backup thermal oxidizers for rollcoating lines L-1 and L-2, respectively. This test shall be repeated at least once every fFive (5) years from the date of the most recent valid compliance demonstration additional testing shall be performed when the backup thermal oxidizers for rollcoating lines L-1 and L-2 operate for 500 hours per twelve (12) consecutive month period, repectively. The source will test the backup thermal oxidizer for which the longest period of time has passed since the last valid compliance test. Testing shall be conducted using methods approved by the Commissioner and in accordance with Section C Performance Testing.

Avery Dennison MFD

Lowell, Indiana

Page 2 of 2

SPM 089-28616-00407

Permit Reviewer: Michael S. Brooks

#### D.1.8 Record Keeping Requirements

(a) To document compliance with Conditions D.1.1 and D.1.2(b), the Permittee shall maintain records in accordance with (1) and (2) below for L-1, L-2 and L-3. Records maintained for (1) and (2) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC content limit established in Condition D.1.2. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

- (1) The VOC content of each coating material and solvent used less water.
- (2) The amount of coating material and solvent used on monthly basis.
  - (A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.
  - (B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.
- (b) To document compliance with Condition D.1.6(b) the Permittee shall maintain records of the hours of operation of each of the backup thermal oxidizers for rollcoating lines L-1 and L-2.
- (**bc**) To document compliance with Conditions D.1.1 and D.1.6, the Permittee shall maintain records of the test results.
- (ed) All records shall be maintained in accordance with Section C General Record Keeping Requirements, of this permit.

# Comment #2

Avery Dennison would like the TSD to clarify that there will not be an addition of any new emission units only the inclusion of previously permitted emission unit.

# **Response to Comment #2**

No changes have been made to the TSD because IDEM prefers that the Technical Support Document reflect the permit that was on public notice. IDEM recognizes that the backup thermal oxidizers are existing units at the source and are being added to the permit through this permit action.

# Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Part 70 Significant Permit Modification

# **Source Description and Location**

Source Name: Avery Dennison MFD

Source Location: 270 West Meadow Place, Lowell, IN 46356

County: Lake SIC Code: 3089

Operation Permit No.: T089-18077-00407
Operation Permit Issuance Date: December 1, 2008
Significant Permit Modification No.: 089-28616-00407
Permit Reviewer: Michael S. Brooks

# **Existing Approvals**

The source was issued Part 70 Operating Permit No. T089-18077-00407 on December 1, 2008.

# **County Attainment Status**

The source is located in Lake County.

Pollutant	Designation
SO <sub>2</sub>	Better than national standards.
со	Attainment effective February 18, 2000, for the part of the city of East Chicago bounded by Columbus Drive on the north; the Indiana Harbor Canal on the west; 148 <sup>th</sup> Street, if extended, on the south; and Euclid Avenue on the east. Unclassifiable or attainment effective November 15, 1990, for the remainder of East Chicago and Lake County.
O <sub>3</sub>	Nonattainment Subpart 2 Moderate effective June 15, 2004, for the 8-hour ozone standard. <sup>1</sup>
PM <sub>10</sub>	Attainment effective March 11, 2003, for the cities of East Chicago, Hammond, Whiting, and Gary. Unclassifiable effective November 15, 1990, for the remainder of Lake County.
NO <sub>2</sub>	Cannot be classified or better than national standards.
Pb	Not designated.

<sup>&</sup>lt;sup>1</sup>Nonattainment Severe 17 effective November 15, 1990, for the Chicago-Gary-Lake County area for the 1-hour ozone standard which was revoked effective June 15, 2005.

Basic nonattainment designation effective federally April 5, 2005, for PM2.5.

#### (a) Ozone Standards

- (1) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.
- (2) On September 6, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Allen, Clark, Elkhart, Floyd, LaPorte, and St. Joseph Counties as attainment for the 8-hour ozone standard.

- (3) On November 9, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Boone, Hamilton, Hancock, Hendricks, Johnson, Madison, Marion, Morgan, and Shelby Counties as attainment for the 8-hour ozone standard.
- (4) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone.

# (i) 1-hour ozone standard

On December 22, 2006, the United States Court of Appeals, District of Columbia issued a decision which served to partially vacate and remand the U.S. EPA's final rule for implementation of the eight-hour National Ambient Air quality Standard for ozone. South Coast Air Quality Mgmt. Dist. v. EPA, 472 F.3d 882 (D.C. Cir., December 22, 2006), rehearing denied 2007 U.S. App. LEXIS 13748 (D.C. Cir., June 8, 2007). The U.S. EPA has instructed IDEM to issue permits in accordance with its interpretation of the South Coast decision as follows: Gary-Lake-Porter County was previously designated as a severe non-attainment area prior to revocation of the one-hour ozone standard, therefore, pursuant to the anti-backsliding provisions of the Clean Air Act, any new or existing source must be subject to the major source applicability cut-offs and offset ratios under the area's previous one-hour standard designation. This means that a source must achieve the Lowest Achievable Emission Rate (LAER) if it exceeds 25 tons per year of VOC emissions and must offset any increase in VOC emissions by a decrease of 1.3 times that amount.

On January 26, 1996, in 40 CFR 52.777(i), the U.S. EPA granted a waiver of the requirements of Section 182(f) of the CAA for Lake and Porter Counties, including the lower NOx threshold for nonattainment new source review. Therefore, VOC emissions alone are considered when evaluating the rule applicability relating to the 1-hour ozone standards. Therefore, VOC emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3. See the State Rule Applicability for the source section.

#### (ii) 8-hour ozone standard

VOC and NOx emissions are considered when evaluating the rule applicability relating to the 8-hour ozone standard. Lake County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3. See the State Rule Applicability – Entire Source section.

# (b) PM2.5

U.S. EPA, in the Federal Register Notice 70 FR 943 dated January 5, 2005, has designated Lake County as nonattainment for PM2.5. On March 7, 2005, the Indiana Attorney General's Office, on behalf of IDEM, filed a lawsuit with the Court of Appeals for the District of Columbia Circuit challenging U.S. EPA's designation of nonattainment areas without sufficient data. However, in order to ensure that sources are not potentially liable for a violation of the Clean Air Act, the OAQ is following the U.S. EPA's New Source Review Rule for PM2.5 promulgated on May 8, 2008, and effective on July 15 2008. Therefore, direct PM2.5 and SO2 emissions were reviewed pursuant to the requirements of Nonattainment New Source Review, 326 IAC 2-1.1-5. See the State Rule Applicability – Entire Source section.

Avery Dennison MFD Lowell, Indiana

Permit Reviewer: Michael S. Brooks

(c) Other Criteria Pollutants
Lake County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(d) Fugitive Emissions

Since this type of operation is not one (1) of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3, fugitive emissions are not counted toward the determination of PSD and Emission Offset applicability.

#### **Source Status**

The table below summarizes the potential to emit of the entire source, prior to the proposed modification, after consideration of all enforceable limits established in the effective permits:

Pollutant	Emissions (ton/yr)
PM	0.0
PM <sub>10</sub>	0.0
PM <sub>2.5</sub>	0.0
SO <sub>2</sub>	0.0
VOC	86.91
CO	0.0
NO <sub>X</sub>	0.0

- (a) This existing source is not a major stationary source, under PSD (326 IAC 2-2), because no regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1).
- (b) This existing source is a major stationary source, under Emission Offset (326 IAC 2-3), because on November 15, 1990, Lake County was designated as severe nonattainment for the 1-hour ozone standard. The source became a major source under 326 IAC 2-3 (EO) and a minor source under 326 IAC 2-2 (PSD).
- (c) These emissions are based upon the Part 70 Operating Permit Renewal No. T089-18077-00407, issued on December 1, 2008.

The table below summarizes the potential to emit HAPs for the entire source, prior to the proposed modification, after consideration of all enforceable limits established in the effective permits:

HAPs	Potential To Emit (ton/yr)
Total	>10 single HAP/<25 Combined HAPs

This existing source is a major source of HAPs, as defined in 40 CFR 63.2, because HAP emissions are greater than ten (10) tons per year for a single HAP. Therefore, this source is a major source under Section 112 of the Clean Air Act (CAA).

#### **Description of Proposed Modification**

The Office of Air Quality (OAQ) has reviewed a modification application submitted by Avery Dennison on October 27, 2009, to add back-up thermal oxidizers to the existing pressure-sensitive vinyl rollcoating lines, identified as L-1 and L-2. The following is a list of the proposed pollution control devices:

Avery Dennison MFD Lowell, Indiana Permit Reviewer: Michael S. Brooks

- (a) One (1) 6.9 MMBtu/hr natural gas fired thermal oxidizer used for backup VOC control, exhausting to stack TOS-1.
- (b) One (1) 9.8 MMBtu/hr natural gas fired thermal oxidizer used for backup VOC control, exhausting to stack TOS-2.

#### **Enforcement Issues**

There are no pending enforcement actions.

#### **Emission Calculations**

See Appendix A of this Technical Support Document for detailed emission calculations.

# Permit Level Determination - Part 70

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emission unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, IDEM, or the appropriate local air pollution control agency."

The following table is used to determine the appropriate permit level under 326 IAC 2-7-10.5. This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

PTE Before Controls of the Modification		
Pollutant	Potential To Emit (ton/yr)	
PM	0.1	
PM <sub>10</sub>	0.6	
SO <sub>2</sub>	0.0	
VOC	0.4	
CO	6.1	
NO <sub>X</sub>	7.3	

HAP PTE Before Controls of the Modification		
HAPs	Potential To Emit (ton/yr)	
TOTAL	<10/25	

A source modification is not required as the modification does not have the potential to emit at or above the thresholds outlined in 326 IAC 2-7-10.5(d)(3), however the modification will be incorporated into the Part 70 Operating Permit through a significant permit modification issued pursuant to 326 IAC 2-7-12(d)(1), because the addition of back-up thermal oxidizers will add testing requirements to the permit.

# **Federal Rule Applicability Determination**

# NSPS:

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this proposed modification.

#### **NESHAP:**

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) applicable to this proposed modification.

Avery Dennison MFD

Lowell, Indiana

Page 5 of 49

Lowell, Indiana

Significant Permit Modification No. 089-28616-00407

Permit Reviewer: Michael S. Brooks

(c) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to each new or modified emission unit that meets the following criteria:

- (1) has a potential to emit before controls equal to or greater than the Part 70 major source threshold for the pollutant involved;
- (2) is subject to an emission limitation or standard for that pollutant; and
- uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are not applicable to any of the modified units as part of this modification.

## State Rule Applicability Determination

There are no state rules applicable to this proposed modification.

## **Compliance Determination and Monitoring Requirements**

No later than 180 days following issuance of this Significant Permit Modification the Permittee shall conduct performance tests to determine the VOC capture and destruction efficiencies of the backup thermal oxidizers for rollcoating lines L-1 and L-2. This test shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted using methods approved by the Commissioner and in accordance with Section C - Performance Testing.

#### **Proposed Changes**

The changes listed below have been made to Part 70 Operating Permit No. T089-18077-00407. Deleted language appears as strikethroughs and new language appears in **bold**:

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary vinyl coating operation.

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Source Address: 270 West Meadow Place, Lowell, Indiana 46356
Mailing Address: 250 Chester Street, Painesville, Ohio 44077

8080 Norton Pkwy., BLDG 22, Mentor, OH 44060

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

- (a) One (1) pressure-sensitive vinyl casting/roll coating line; constructed on July 1, 1980; identified as L-1; with a maximum capacity of 24,750 square feet per hour; using a 20 MMBtu/hr natural gas-fired thermal oxidizer, identified as C-1, for VOC control; exhausting to stack S-1, utilizing a 6.9 MMBtu/hr natural gas fired thermal oxidizer used for backup VOC control when C-1 is offline, exhausting to stack TOS-1. Under 40 CFR Part 63, Subpart JJJJ, L-1 is considered an existing web coating line.
- (b) One (1) pressure-sensitive vinyl casting/roll coating line, constructed on December 1, 1984; and one (1) surface coating head (CH-1), constructed in 2001; identified together as L-2; with a maximum capacity of 23,063 square feet per hour; using a 20 MMBtu/hr natural gas-fired thermal oxidizer, identified as C-1, for VOC control; exhausting to stack S-1, utilizing a 9.8 MMBtu/hr natural gas fired thermal oxidizer used for backup VOC control when C-1 is offline, exhausting to stack TOS-2. Under 40 CFR Part 63,

Subpart JJJJ, L-2 is considered an existing web coating line. Under 40 CFR Part 60, Subpart RR, L-2 is considered an affected source.

...

#### SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Surface Coating

- (a) One (1) pressure-sensitive vinyl casting/rollcoating line; constructed on July 1, 1980; identified as L-1; with a maximum capacity of 24,750 square feet per hour; using a 20 MMBtu/hr natural gas-fired thermal oxidizer, identified as C-1, for VOC control; exhausting to stack S-1, utilizing a 6.9 MMBtu/hr natural gas fired thermal oxidizer used for backup VOC control when C-1 is offline, exhausting to stack TOS-1. Under 40 CFR Part 63, Subpart JJJJ, L-1 is considered an existing web coating line.
- (b) One (1) pressure-sensitive vinyl casting/rollcoating line, constructed on December 1, 1984; and one (1) surface coating head (CH-1), constructed in 2001; identified together as L-2; with a maximum capacity of 23,063 square feet per hour; using a 20 MMBtu/hr natural gas-fired thermal oxidizer, identified as C-1, for VOC control; exhausting to stack S-1, utilizing a 9.8 MMBtu/hr natural gas fired thermal oxidizer used for backup VOC control when C-1 is offline, exhausting to stack TOS-2. Under 40 CFR Part 63, Subpart JJJJ, L-2 is considered an existing web coating line. Under 40 CFR Part 60, Subpart RR, L-2 is considered an affected source.
- (c) One (1) pressure-sensitive vinyl adhesive rollcoating line; constructed on June 1, 1988; identified as L-3; with a maximum capacity of 30,750 square feet per hour; using a 20 MMBtu/hr natural gas-fired thermal oxidizer, identified as C-1, for VOC control (except when using an emulsion coating); exhausting to stack S-1. Under 40 CFR Part 63, Subpart JJJJ, L-3 is considered an existing web coating line. Under 40 CFR Part 60, Subpart RR, L-3 is considered an affected source.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

...

# Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.1.1 Volatile Organic Compounds (VOC) [326 IAC 2-3]

Pursuant to MSM 089-12713-00407, issued December 14, 2000, and as revised by this Part 70 Renewal permit:

- (a) The VOC input to surface coating head CH-1, as part of L-2 shall not exceed five hundred (500) tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (b) Thermal oxidizer C-1 or the 9.8MMBtu/hr backup thermal oxidizer shall control VOC emissions from CH-1 and achieve a minimum overall efficiency of ninety-eight percent (98%).

Compliance with these limits will limit the VOC emissions from CH-1 to less than 10 tons per twelve (12) consecutive month period and render the requirements of 326 IAC 2-3 (Emission Offset) not applicable to CH-1.

• •

#### D.1.5 Volatile Organic Compounds (VOC) [326 IAC 8-1-2][40 CFR Part 64]

Pursuant to 326 IAC 8-1-2(a) and in order to achieve compliance with Conditions D.1.1 and D.1.2, the Permittee shall operate the **a** thermal oxidizer whenever:

(a) L-1 is in operation and using 326 IAC 8-2-5 noncompliant coatings;

Avery Dennison MFD Lowell, Indiana Permit Reviewer: Michael S. Brooks

- (b) L-2 is in operation and using 326 IAC 8-2-5 noncompliant coatings; or
- (c) L-3 is in operation and using 326 IAC 8-2-5 noncompliant coatings.

#### D.1.6 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

- (a) No later than 180 days following issuance of this Part 70 Renewal, tThe Permittee shall conduct performance tests to determine the VOC capture and destruction efficiencies of thermal oxidizer C-1. This test shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted using methods approved by the Commissioner and in accordance with Section C Performance Testing.
- (b) No later than 180 days following issuance of Significant Permit Modification No. 089-28616-00407, the Permittee shall conduct performance tests to determine the VOC capture and destruction efficiencies of one (1) of the two (2) backup thermal oxidizers for rollcoating lines L-1 and L-2. This test shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration. The source will test the backup thermal oxidizer for which the longest period of time has passed since the last valid compliance test. Testing shall be conducted using methods approved by the Commissioner and in accordance with Section C Performance Testing.

#### **Compliance Monitoring Requirements**

D.1.7 Thermal Oxidizer Compliance Monitoring [40 CFR Part 64]

The Permittee shall comply with the requirements of 40 CFR 63.3350(a), (b), (e) and (f) when operating the **a** thermal oxidizer used to control emissions from L-1, L-2 and L-3. ...

#### **IDEM Changes:**

## IDEM Change #1:

All references to 40 CFR 63, Subpart JJJJ Part and 40 CFR 60, Subpart RR have been removed from Condition D.1 and incorporated as E.1 and E.2, respectively. 40 CFR 63, Subpart JJJJ and 40 CFR 60, Subpart RR have been included in their entirety as Attachment A and Attachment B, to this permit as follows:

# New Source Performance Standards (NSPS) Requirements – 40 CFR Part 60, Subpart RR [326 IAC 2-7-5(1)]

- D.1.10 General Provisions Relating to New Source Performance Standards under 40 CFR Part 60 [326 IAC 12-1] [40 CFR Part 60, Subpart A]
  - (a) Pursuant to 40 CFR Part 60, Subpart RR, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A General Provisions, which are incorporated by reference as 326 IAC 12-1, for rollcoating lines L-2 and L-3 in accordance with schedule in 40 CFR Part 60, Subpart RR.
  - (b) Pursuant to 40 CFR 60.10, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management Compliance Branch, Office of Air Quality 100 North Senate Avenue MC 61-53 IGCN 1003 Indianapolis, Indiana 46204-2251 Avery Dennison MFD Lowell, Indiana Permit Reviewer: Michael S. Brooks

Operations: Requirements [40 CFR Part 60, Subpart RR]

Pursuant to 40 CFR Part 60, Subpart RR, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart RR for rollcoating lines L-2 and L-3 as follows:

# Subpart RR—New Source Performance Standards for Pressure Sensitive Tape and Label Surface Coating Operations

Source: 48 FR 48375, Oct. 18, 1983, unless otherwise noted.

- § 60.440 Applicability and designation of affected facility.
  - (a) The affected facility to which the provisions of this subpart apply is each coating line used in the manufacture of pressure sensitive tape and label materials.
  - (b) Any affected facility which inputs to the coating process 45 Mg (50 tons) of VOC or less per 12 month period is not subject to the emission limits of §60.442(a), however, the affected facility is subject to the requirements of all other applicable sections of this subpart. If the amount of VOC input exceeds 45 Mg (50 tons) per 12 month period, the coating line will become subject to §60.442(a) and all other sections of this subpart.
  - (e) This subpart applies to any affected facility which begins construction, modification, or reconstruction after December 30, 1980.

[48 FR 48375, Oct. 18, 1983, as amended at 65 FR 61761, Oct. 17, 2000]

- § 60.441 Definitions and symbols.
  - (a) Except as otherwise required by the context, terms used in this subpart are defined in the Act, in subpart A of this part, or in this section as follows:

Coating applicator means an apparatus used to apply a surface coating to a continuous web.

Coating line means any number or combination of adhesive, release, or precoat coating applicators, flashoff areas, and evens which coat a continuous web, located between a web unwind station and a web rewind station, to produce pressure sensitive tape and label materials.

Coating solids applied means the solids content of the coated adhesive, release, or precoat as measured by Method 24.

Flashoff area means the portion of a coating line after the coating applicator and usually before the oven entrance.

Fugitive volatile organic compounds means any volatile organic compounds which are emitted from the coating applicator and flashoff areas and are not emitted in the oven.

Hood or enclosure means any device used to capture fugitive volatile organic compounds.

Oven means a chamber which uses heat or irradiation to bake, cure, polymerize, or dry a surface coating.

Precoat means a coating operation in which a coating other than an adhesive or release is applied to a surface during the production of a pressure sensitive tape or label product.

Solvent applied in the coating means all organic solvent contained in the adhesive, release, and precoat formulations that is metered into the coating applicator from the formulation area.

Total enclosure means a structure or building around the coating applicator and flashoff area or the entire coating line for the purpose of confining and totally capturing fugitive VOC emissions.

VOC means volatile organic compound.

(b) All symbols used in this subpart not defined below are given meaning in the Act or in subpart A of this part.

a=the gas stream vents exiting the emission control device.

b=the gas stream vents entering the emission control device.

Caj=the concentration of VOC (carbon equivalent) in each gas stream (j) exiting the emission control device, in parts per million by volume.

Cbi=the concentration of VOC (carbon equivalent) in each gas stream (i) entering the emission control device, in parts per million by volume.

Cfk=the concentration of VOC (carbon equivalent) in each gas stream (k) emitted directly to the atmosphere, in parts per million by volume.

G=the calculated weighted average mass (kg) of VOC per mass (kg) of coating solids applied each calendar month.

M<sub>ei</sub>=the total mass (kg) of each coating (i) applied during the calendar month as determined from facility records.

M<sub>r</sub>=the total mass (kg) of solvent recovered for a calendar month.

Q<sub>aj</sub>=the volumetric flow rate of each effluent gas stream (j) exiting the emission control device, in dry standard cubic meters per hour.

Q<sub>bi</sub>=the volumetric flow rate of each effluent gas stream (i) entering the emission control device, in dry standard cubic meters per hour.

Q<sub>tk</sub>=the volumetric flow rate of each effluent gas stream (k) emitted to the atmosphere, in dry standard cubic meters per hour.

R=the overall VOC emission reduction achieved for a calendar month (in percent).

R<sub>e</sub>=the required overall VOC emission reduction (in percent).

W<sub>oi</sub>=the weight fraction of organics applied of each coating (i) applied during a calendar month as determined from Method 24 or coating manufacturer's formulation data.

W<sub>si</sub>=the weight fraction of solids applied of each coating (i) applied during a calendar month as determined from Method 24 or coating manufacturer's formulation data.

[48 FR 48375, Oct. 18, 1983, as amended at 65 FR 61761, Oct. 17, 2000]

#### § 60.442 Standard for volatile organic compounds.

- (a) On and after the date on which the performance test required by §60.8 has been completed each owner or operator subject to this subpart shall:
- (1)Cause the discharge into the atmosphere from an affected facility not more than 0.20 kg VOC/kg of coating solids applied as calculated on a weighted average basis for one calendar month: or
- (2) Demonstrate for each affected facility:
- (i) A 90 percent overall VOC emission reduction as calculated over a calendar month; or
- (ii) The percent overall VOC emission reduction specified in §60.443(b) as calculated over a calendar month.

#### § 60.443 Compliance provisions.

- (a)To determine compliance with §60.442 the owner or operator of the affected facility shall calculate a weighted average of the mass of solvent used per mass of coating solids applied for a one calendar month period according to the following procedures:
- (1) Determine the weight fraction of organics and the weight fraction of solids of each coating applied by using Reference Method 24 or by the coating manufacturer's formulation data.
- (2) Compute the weighted average by the following equation:

Lowell, Indiana Permit Reviewer: Michael S. Brooks

$$\frac{G}{\sum_{i=1}^{n} W_{oi} M_{ci}} = \frac{\sum_{i=1}^{n} W_{oi} M_{ci}}{\sum_{i=1}^{n} W_{si} M_{ci}}$$

(3) For each affected facility where the value of G is less than or equal to 0.20 kg VOC per kg of coating solids applied, the affected facility is in compliance with §60.442(a)(1).

(b) To determine compliance with §60.442(a)(2), the owner or operator shall calculate the required overall VOC emission reduction according to the following equation:

$$\frac{R_q = \frac{G - 0.20}{G} \times 100}{G}$$

If R<sub>e</sub>is less than or equal to 90 percent, then the required overall VOC emission reduction is R<sub>e</sub>. If R<sub>e</sub>is greater than 90 percent, then the required overall VOC emission reduction is 90 percent.

(e) Where compliance with the emission limits specified in §60.442(a)(2) is achieved through the use of a solvent recovery system, the owner or operator shall determine the overall VOC emission reduction for a one calendar month period by the following equation:

$$R = \sum_{i=1}^{n} \frac{M_r}{W_{oi} M_{oi}} \times 100$$

If the R value is equal to or greater than the R<sub>a</sub>value specified in paragraph (b) of this section, then compliance with §60.442(a)(2) is demonstrated.

(d) Where compliance with the emission limit specified in §60.442(a)(2) is achieved through the use of a solvent destruction device, the owner or operator shall determine calendar monthly compliance by comparing the monthly required overall VOC emission reduction specified in paragraph (b) of this section to the overall VOC emission reduction demonstrated in the most recent performance test which complied with §60.442(a)(2). If the monthly required overall VOC emission reduction is less than or equal to the overall VOC reduction of the most recent performance test, the affected facility is in compliance with §60.442(a)(2).

(e) Where compliance with §60.442(a)(2) is achieved through the use of a solvent destruction device, the owner or operator shall continuously record the destruction device combustion temperature during coating operations for thermal incineration destruction devices or the gas temperature upstream and downstream of the incinerator catalyst bed during coating operations for catalytic incineration destruction devices. For thermal incineration destruction devices the owner or operator shall record all 3-hour periods (during actual coating operations) during which the average temperature of the device is more than 28 °C (50 °F) below the average temperature of the device during the most recent performance test complying with §60.442(a)(2). For catalytic incineration destruction devices, the owner or operator shall record all 3-hour periods (during actual coating operations) during which the average temperature of the device immediately before the catalyst bed is more than 28 °C (50 °F) below the average temperature of the device during the most recent performance test complying with §60.442(a)(2), and all 3-hour periods (during actual coating operations) during which the average temperature difference across the catalyst bed is less than 80 percent of the average temperature difference of the device during the most recent performance test complying with §60.442(a)(2).

(f) After the initial performance test required for all affected facilities under §60.8, compliance with the VOC emission limitation and percentage reduction requirements under \$60.442 is based on the average emission reduction for one calendar month. A separate compliance test is completed at the end of each calendar month after the initial performance test, and a new calendar month's average VOC emission reduction is calculated to show compliance with the standard.

(g) If a common emission control device is used to recover or destroy solvent from more than one affected facility, the performance of that control device is assumed to be equal for each of the affected facilities. Compliance with §60.442(a)(2) is determined by the methods specified in paragraphs (c) and (d) of this section and is performed simultaneously on all affected facilities.

(i) If a common emission control device(s) is used to destruct solvent from an existing facility (or facilities) as well as from an affected facility (or facilities), the overall VOC emission reduction for the affected facility (or facilities), for the purpose of compliance, shall be determined by the following procedures:

- (1) The owner or operator shall operate the emission control device with both the existing and affected facilities connected.
- (2) The concentration of VOC (in parts per million by volume) after the common emission control device shall be determined as specified in §60.444(c). This concentration is used in the calculation of compliance for both the existing and affected facilities.
- (3) The volumetric flow out of the common control device attributable to the affected facility (or facilities) shall be calculated by first determining the ratio of the volumetric flow entering the common control device attributable to the affected facility (facilities) to the total volumetric flow entering the common control device from both existing and affected facilities. The multiplication of this ratio by the total volumetric flow out of the common control device yields the flow attributable to the affected facility (facilities). Compliance is determined by the use of the equation specified in \$60.444(c).
- (j) Startups and shutdowns are normal operation for this source category. Emissions from these operations are to be included when determining if the standard specified at §60.442(a)(2) is being attained.

[48 FR 48375, Oct. 18, 1983, as amended at 65 FR 61761, Oct. 17, 2000]

#### § 60.444 Performance test procedures.

- (e) The performance test for affected facilities controlled by a solvent destruction device shall be conducted as follows:
- (1) The performance of the solvent destruction device shall be determined by averaging the results of three test runs as specified in §60.8(f).
- (2) Determine for each affected facility prior to each test run the weighted average mass of VOC per mass of coating solids applied being used at the facility. The weighted average shall be determined as specified in §60.443(a). In this application the quantities of W<sub>ei</sub>, W<sub>ei</sub>, and M<sub>ei</sub>shall be determined for the time period of each test run and not a calendar month as specified in §60.441.
- (3) Calculate the required percent overall VOC emission reduction as specified in §60.443(b).
- (4) Determine the percent overall VOC emission reduction of the solvent destruction device by the following equation and procedures:

$$R = \frac{\sum_{i=1}^{n} Q_{bi} C_{bi} \sum_{j=1}^{m} Q_{aj} Q_{aj}}{\sum_{i=1}^{n} Q_{bi} C_{bi} \sum_{k=1}^{p} Q_{fk} C_{fk}}$$

- (i) The owner or operator of the affected facility shall construct the overall VOC emission reduction system so that all volumetric flow rates and total VOC emissions can be accurately determined by the applicable test methods and procedures specified in §60.446(b).
- (ii) The owner or operator of an affected facility shall construct a temporary total enclosure around the coating line applicator and flashoff area during the performance test for the purpose of capturing fugitive VOC emissions. If a permanent total enclosure exists in the affected facility prior to the performance test and the Administrator is satisfied that the enclosure is totally capturing fugitive VOC emissions, then no additional total enclosure will be required for the performance test.
- (iii) For each affected facility where the value of R is greater than or equal to the value of R<sub>q</sub>calculated in §60.443(b), compliance with §60.442(a)(2) is demonstrated.

#### § 60.445 Monitoring of operations and recordkeeping.

- (a) The owner or operator of an affected facility subject to this subpart shall maintain a calendar month record of all coatings used and the results of the reference test method specified in §60.446(a) or the manufacturer's formulation data used for determining the VOC content of those coatings.
- (e) The owner or operator of an affected facility controlled by a thermal incineration solvent destruction device shall install, calibrate, maintain, and operate a monitoring device which continuously indicates and records the temperature of the solvent destruction device's exhaust gases. The monitoring device shall have an accuracy of the greater of ±0.75 percent of the temperature being measured expressed in degrees Celsius or ±2.5 °C.

Avery Dennison MFD

Lowell, Indiana

(g) The owner or operator of an affected facility controlled by a solvent destruction device which uses a hood or enclosure to capture fugitive VOC emissions shall install, calibrate, maintain, and operate a monitoring device which continuously indicates that the hood or enclosure is operating. No continuous monitor shall be required if the owner or operator can demonstrate that the hood or enclosure system is interlocked with the affected facility's oven recirculation air system.

(h) Records of the measurements required in §§60.443 and 60.445 must be retained for at least two years following the date of the measurements.

#### § 60.446 Test methods and procedures.

- (a) The VOC content per unit of coating solids applied and compliance with §60.422(a)(1) shall be determined by either Method 24 and the equations specified in §60.443 or by manufacturers' formulation data. In the event of any inconsistency between a Method 24 test and manufacturers' formulation data, the Method 24 test will govern. The Administrator may require an owner or operator to perform Method 24 tests during such months as he deems appropriate. For Method 24, the coating sample must be a one liter sample taken into a one liter container at a point where the sample will be representative of the coating applied to the web substrate.
- (b) Method 25 shall be used to determine the VOC concentration, in parts per million by volume, of each effluent gas stream entering and exiting the solvent destruction device or its equivalent, and each effluent gas stream emitted directly to the atmosphere. Methods 1, 2, 3, and 4 shall be used to determine the sampling location, volumetric flowrate, molecular weight, and moisture of all sampled gas streams. For Method 25, the sampling time for each of three runs must be at least 1 hour. The minimum sampling volume must be 0.003 dscm except that shorter sampling times or smaller volumes, when necessitated by process variables or other factors, may be approved by the Administrator.
- (e) If the owner or operator can demonstrate to the Administrator's satisfaction that testing of representative stacks yields results comparable to those that would be obtained by testing all stacks, the Administrator will approve testing of representative stacks on a case-by-case basis.

[48 FR 48375, Oct. 18, 1983, as amended at 65 FR 61761, Oct. 17, 2000]

# § 60.447 Reporting requirements.

- (a) For all affected facilities subject to compliance with §60.442, the performance test data and results from the performance test shall be submitted to the Administrator as specified in §60.8(a) of the General Provisions (40 CFR part 60, subpart A).
- (b) Following the initial performance test, the owner or operator of each affected facility shall submit quarterly reports to the Administrator of exceedances of the VOC emission limits specified in §60.442. If no such exceedances occur during a particular quarter, a report stating this shall be submitted to the Administrator semiannually.
- (c) The owner or operator of each affected facility shall also submit reports at the frequency specified in §60.7(c) when the incinerator temperature drops as defined under §60.443(e). If no such periods occur, the owner or operator shall state this in the report.
- (d) The requirements of this subsection remain in force until and unless EPA, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such States. In that event, affected sources within the State will be relieved of the obligation to comply with this subsection, provided that they comply with the requirements established by the State.

[48 FR 48375, Oct. 18, 1983, as amended at 55 FR 51383, Dec. 13, 1990]

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements – 40 CFR Part 63, Subpart JJJJ [326 IAC 2-7-5(1)]

- D.1.12 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63 [326 IAC 12-1] [40 CFR Part 63, Subpart A]
  - (a) Pursuant to 40 CFR Part 63, Subpart JJJJ, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A General Provisions, which are incorporated by reference as 326 IAC 20-1, except as otherwise specified in 40 CFR Part 63, Subpart JJJJ.
  - (b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

Avery Dennison MFD Lowell, Indiana

Permit Reviewer: Michael S. Brooks

Indiana Department of Environmental Management Compliance Branch, Office of Air Quality 100 North Senate Avenue MC 61-53 IGCN 1003 Indianapolis, Indiana 46204-2251

# D.1.13 National Emission Standards for Hazardous Air Pollutants - Paper and Other Web Coating: Requirements [40 CFR Part 63, Subpart JJJJ]

Pursuant to 40 CFR 63.3330(a), the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart JJJJ for rollcoating lines L-1, L-2 and L-3 as specified as follows on and after December 5, 2005:

Subpart JJJJ-National Emission Standards for Hazardous Air Pollutants: Paper and Other Web Coating

Source: 67 FR 72341, Dec. 4, 2002, unless otherwise noted.

What This Subpart Covers

#### § 63.3280 What is in this subpart?

This subpart describes the actions you must take to reduce emissions of organic hazardous air pollutants (HAP) from paper and other web coating operations. This subpart establishes emission standards for web coating lines and specifies what you must do to comply if you own or operate a facility with web coating lines that is a major source of HAP. Certain requirements apply to all who are subject to this subpart; others depend on the means you use to comply with an emission standard.

# § 63.3290 Does this subpart apply to me?

The provisions of this subpart apply to each new and existing facility that is a major source of HAP, as defined in §63.2, at which web coating lines are operated.

#### § 63.3300 Which of my emission sources are affected by this subpart?

The affected source subject to this subpart is the collection of all web coating lines at your facility. This includes web coating lines engaged in the coating of metal webs that are used in flexible packaging, and web coating lines engaged in the coating of fabric substrates for use in pressure sensitive tape and abrasive materials. Web coating lines specified in paragraphs (a) through (g) of this section are not part of the affected source of this subpart.

- (a) Any web coating line that is stand-alone equipment under subpart KK of this part (National Emission Standards for the Printing and Publishing Industry) which the owner or operator includes in the affected source under subpart KK.
- (b) Any web coating line that is a product and packaging rotogravure or wide-web flexographic press under subpart KK of this part (national emission standards for the printing and publishing industry) which is included in the affected source under subpart KK.
- (e) Web coating in lithography, screenprinting, letterpress, and narrow-web flexographic printing processes.
- (d) Any web coating line subject to subpart EE of this part (national emission standards for magnetic tape manufacturing operations).
- (e) Any web coating line that will be subject to the national emission standards for hazardous air pollutants (NESHAP) for surface coating of metal coil currently under development.
- (f) Any web coating line that will be subject to the NESHAP for the printing, coating, and dyeing of fabric and other textiles currently under development. This would include any web coating line that coats both a paper or other web substrate and a fabric or other textile substrate, except for a fabric substrate used for pressure sensitive tape and abrasive materials.
- (g) Any web coating line that is defined as research or laboratory equipment in §63.3310.

[67 FR 72341, Dec. 4, 2002, as amended at 71 FR 29805, May 24, 2006]

#### § 63.3310 What definitions are used in this subpart?

All terms used in this subpart that are not defined in this section have the meaning given to them in the Clean Air Act (CAA) and in subpart A of this part.

Always-controlled work station means a work station associated with a dryer from which the exhaust is delivered to a control device with no provision for the dryer exhaust to bypass the control device unless there is an interlock to interrupt and prevent continued coating during a bypass. Sampling lines for analyzers, relief valves needed for safety purposes, and periodic cycling of exhaust dampers to ensure safe operation are not considered bypass lines.

Applied means, for the purposes of this subpart, the amount of organic HAP, coating material, or coating solids (as appropriate for the emission standards in §63.3320(b)) used by the affected source during the compliance period.

As-applied means the condition of a coating at the time of application to a substrate, including any added solvent.

As-purchased means the condition of a coating as delivered to the user.

Capture efficiency means the fraction of all organic HAP emissions generated by a process that is delivered to a control device, expressed as a percentage.

Capture system means a hood, enclosed room, or other means of collecting organic HAP emissions into a closed-vent system that exhausts to a control device.

Car-seal means a seal that is placed on a device that is used to change the position of a valve or damper (e.g., from open to closed) in such a way that the position of the valve or damper cannot be changed without breaking the seal.

Coating material(s) means all inks, varnishes, adhesives, primers, solvents, reducers, and other coating materials applied to a substrate via a web coating line. Materials used to form a substrate are not considered coating materials.

Control device means a device such as a solvent recovery device or oxidizer which reduces the organic HAP in an exhaust gas by recovery or by destruction.

Control device efficiency means the ratio of organic HAP emissions recovered or destroyed by a control device to the total organic HAP emissions that are introduced into the control device, expressed as a percentage.

Day means a 24-consecutive-hour period.

Deviation means any instance in which an affected source, subject to this subpart, or an owner or operator of such a source:

- (1) Fails to meet any requirement or obligation established by this subpart including, but not limited to, any emission limitation (including any operating limit) or work practice standard;
- (2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or
- (3) Fails to meet any emission limitation (including any operating limit) or work practice standard in this subpart during start-up, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart.

Existing affected source means any affected source the construction or reconstruction of which is commenced on or before September 13, 2000, and has not undergone reconstruction as defined in §63.2.

Fabric means any weven, knitted, plaited, braided, felted, or non-weven material made of filaments, fibers, or yarns including thread. This term includes material made of fiberglass, natural fibers, synthetic fibers, or composite materials.

Facility means all contiguous or adjoining property that is under common ownership or control, including properties that are separated only by a road or other public right-of-way.

Flexible packaging means any package or part of a package the shape of which can be readily changed. Flexible packaging includes, but is not limited to, bags, pouches, labels, liners and wraps utilizing paper, plastic, film, aluminum foil, metalized or coated paper or film, or any combination of these materials.

Formulation data means data on the organic HAP mass fraction, volatile matter mass fraction, or coating solids mass fraction of a material that is generated by the manufacturer or means other than a test method specified in this subpart or an approved alternative method.

HAP means hazardous air pollutants.

HAP applied means the organic HAP content of all coating materials applied to a substrate by a web coating line at an affected source.

Page 15 of 49 Significant Permit Modification No. 089-28616-00407

Avery Dennison MFD Lowell, Indiana Permit Reviewer: Michael S. Brooks

Intermittently-controlled work station means a work station associated with a dryer with provisions for the dryer exhaust to be delivered to or diverted from a control device through a bypass line, depending on the position of a valve or damper. Sampling lines for analyzers, relief valves needed for safety purposes, and periodic cycling of exhaust dampers to ensure safe operation are not considered bypass lines.

Metal coil means a continuous metal strip that is at least 0.15 millimeter (0.006 inch) thick which is packaged in a roll or coil prior to coating. After coating, it may or may not be rewound into a roll or coil. Metal coil does not include metal webs that are coated for use in flexible packaging.

Month means a calendar month or a pre-specified period of 28 days to 35 days to allow for flexibility in recordkeeping when data are based on a business accounting period.

Never-controlled work station means a work station that is not equipped with provisions by which any emissions, including those in the exhaust from any associated dryer, may be delivered to a control device.

New affected source means any affected source the construction or reconstruction of which is commenced after September 13, 2000.

Overall organic HAP control efficiency means the total efficiency of a capture and control system.

Pressure sensitive tape means a flexible backing material with a pressure-sensitive adhesive coating on one or both sides of the backing. Examples include, but are not limited to, duct/duct insulation tape and medical tape.

Research or laboratory equipment means any equipment for which the primary purpose is to conduct research and development into new processes and products where such equipment is operated under the close supervision of technically trained personnel and is not engaged in the manufacture of products for commercial sale in commerce except in a de minimis manner.

Rewind or cutting station means a unit from which substrate is collected at the outlet of a web coating line.

Uncontrolled coating line means a coating line consisting of only never-controlled work stations.

Unwind or feed station means a unit from which substrate is fed to a web coating line.

Web means a continuous substrate ( e.g., paper, film, foil) which is flexible enough to be wound or unwound as rolls.

Web coating line means any number of work stations, of which one or more applies a continuous layer of coating material across the entire width or any portion of the width of a web substrate, and any associated curing/drying equipment between an unwind or feed station and a rewind or cutting station.

Work station means a unit on a web coating line where coating material is deposited onto a web substrate.

Emission Standards and Compliance Dates

#### § 63.3320 What emission standards must I meet?

- (a) If you own or operate any affected source that is subject to the requirements of this subpart, you must comply with these requirements on and after the compliance dates as specified in §63.3330.
- (b) You must limit organic HAP emissions to the level specified in paragraph (b)(1), (2), (3), or (4) of this section.
- (1) No more than 5 percent of the organic HAP applied for each month (95 percent reduction) at existing affected sources, and no more than 2 percent of the organic HAP applied for each month (98 percent reduction) at new affected sources; or
- (2) No more than 4 percent of the mass of coating materials applied for each month at existing affected sources, and no more than 1.6 percent of the mass of coating materials applied for each month at new affected sources; or
- (3) No more than 20 percent of the mass of coating solids applied for each month at existing affected sources, and no more than 8 percent of the coating solids applied for each month at new affected sources.
- (4) If you use an oxidizer to control organic HAP emissions, operate the oxidizer such that an outlet organic HAP concentration of no greater than 20 parts per million by volume (ppmv) by compound on a dry basis is achieved and the efficiency of the capture system is 100 percent.
- (c) You must demonstrate compliance with this subpart by following the procedures in §63.3370.

#### § 63.3321 What operating limits must I meet?

(a) For any web coating line or group of web coating lines for which you use add-on control devices, unless you use a solvent recovery system and conduct a liquid-liquid material balance, you must meet the operating limits specified in Table 1 to this subpart or according to paragraph (b) of this section. These operating limits apply to emission capture systems and control devices, and you must establish the operating limits during the performance test according to the requirements in §63.3360(e)(3). You must meet the operating limits at all times after you establish them.

(b) If you use an add-on control device other than those listed in Table 1 to this subpart or wish to monitor an alternative parameter and comply with a different operating limit, you must apply to the Administrator for approval of alternative monitoring under §63.8(f).

#### § 63.3330 When must I comply?

- (a) If you own or operate an existing affected source subject to the provisions of this subpart, you must comply by the compliance date. The compliance date for existing affected sources in this subpart is December 5, 2005. You must complete any performance test required in §63.3360 within the time limits specified in §63.7(a)(2).
- (b) If you own or operate a new affected source subject to the provisions of this subpart, your compliance date is immediately upon start-up of the new affected source or by December 4, 2002, whichever is later. You must complete any performance test required in §63.3360 within the time limits specified in §63.7(a)(2).
- (e) If you own or operate a reconstructed affected source subject to the provisions of this subpart, your compliance date is immediately upon startup of the affected source or by December 4, 2002, whichever is later. Existing affected sources which have undergone reconstruction as defined in §63.2 are subject to the requirements for new affected sources. The costs associated with the purchase and installation of air pollution control equipment are not considered in determining whether the existing affected source has been reconstructed. Additionally, the costs of retrofitting and replacing of equipment that is installed specifically to comply with this subpart are not considered reconstruction costs. You must complete any performance test required in §63.3360 within the time limits specified in §63.7(a)(2).

General Requirements for Compliance With the Emission Standards and for Monitoring and Performance Tests

#### § 63.3340 What general requirements must I meet to comply with the standards?

Table 2 to this subpart specifies the provisions of subpart A of this part that apply if you are subject to this subpart, such as startup, shutdown, and malfunction plans (SSMP) in §63.6(e)(3) for affected sources using a control device to comply with the emission standards.

§ 63.3350 If I use a control device to comply with the emission standards, what monitoring must I do?

(a) A summary of monitoring you must do follows:

If you operate a web coating line, and have the following:	Then you must:
(1) Intermittently-controlled work stations	Record parameters related to possible exhaust flow bypass of control device and to coating use (§63.3350(c)).
(2) Solvent recovery unit	Operate continuous emission monitoring system and perform quarterly audits or determine volatile matter recovered and conduct a liquid-liquid material balance (§63.3350(d)).
(3) Control Device	Operate continuous parameter monitoring system (§63.3350(e)).
(4) Capture system	Monitor capture system operating parameter (§63.3350(f)).

- (b) Following the date on which the initial performance test of a control device is completed to demonstrate continuing compliance with the standards, you must monitor and inspect each capture system and each control device used to comply with §63.3320. You must install and operate the monitoring equipment as specified in paragraphs (c) and (f) of this section.
- (c) Bypass and coating use monitoring. If you own or operate web coating lines with intermittently controlled work stations, you must monitor bypasses of the control device and the mass of each coating material applied at the work station during any such bypass. If using a control device for complying with the requirements of this subpart, you must demonstrate that any coating material applied on a never-controlled work station or an intermittently controlled work station operated in bypass mode is allowed in your compliance demonstration according to §63.3370(n) and (o). The bypass monitoring must be conducted using at least one of the procedures in paragraphs (c)(1) through (4) of this section for each work station and associated dryer.

- (1) Flow control position indicator. Install, calibrate, maintain, and operate according to the manufacturer's specifications a flow control position indicator that provides a record indicating whether the exhaust stream from the dryer was directed to the control device or was diverted from the control device. The time and flow control position must be recorded at least once per hour as well as every time the flow direction is changed. A flow control position indicator must be installed at the entrance to any bypass line that could divert the exhaust stream away from the control device to the atmosphere.
- (2) Car-seal or lock-and-key valve closures. Secure any bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism must be performed at least once every month to ensure that the valve or damper is maintained in the closed position, and the exhaust stream is not diverted through the bypass line.
- (3) Valve closure continuous monitoring. Ensure that any bypass line valve or damper is in the closed position through continuous monitoring of valve position when the emission source is in operation and is using a control device for compliance with the requirements of this subpart. The monitoring system must be inspected at least once every month to verify that the monitor will indicate valve position.
- (4) Automatic shutdown system. Use an automatic shutdown system in which the web coating line is stopped when flow is diverted away from the control device to any bypass line when the control device is in operation. The automatic system must be inspected at least once every month to verify that it will detect diversions of flow and would shut down operations in the event of such a diversion.
- (d) Solvent recovery unit. If you own or operate a solvent recovery unit to comply with §63.3320, you must meet the requirements in either paragraph (d)(1) or (2) of this section depending on how control efficiency is determined.
- (1) Continuous emission monitoring system (CEMS). If you are demonstrating compliance with the emission standards in §63.3320 through continuous emission monitoring of a control device, you must install, calibrate, operate, and maintain the CEMS according to paragraphs (d)(1)(i) through (iii) of this section.
- (i) Measure the total organic volatile matter mass flow rate at both the control device inlet and the outlet such that the reduction efficiency can be determined. Each continuous emission monitor must comply with performance specification 6, 8, or 9 of 40 CFR part 60, appendix B, as appropriate.
- (ii) You must follow the quality assurance procedures in procedure 1, appendix F of 40 CFR part 60. In conducting the quarterly audits of the monitors as required by procedure 1, appendix F, you must use compounds representative of the gaseous emission stream being controlled.
- (iii) You must have valid data from at least 90 percent of the hours during which the process is operated.
- (2) Liquid-liquid material balance. If you are demonstrating compliance with the emission standards in §63.3320 through liquid-liquid material balance, you must install, calibrate, maintain, and operate according to the manufacturer's specifications a device that indicates the cumulative amount of volatile matter recovered by the solvent recovery device on a monthly basis. The device must be certified by the manufacturer to be accurate to within ±2.0 percent by mass.
- (e) Continuous parameter monitoring system (CPMS). If you are using a control device to comply with the emission standards in §63.3320, you must install, operate, and maintain each CPMS specified in paragraphs (e)(9) and (10) and (f) of this section according to the requirements in paragraphs (e)(1) through (8) of this section. You must install, operate, and maintain each CPMS specified in paragraph (e) of this section according to paragraphs (e)(5) through (7) of this section.
- (1) Each CPMS must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of four equally spaced successive cycles of CPMS operation to have a valid hour of data.
- (2) You must have valid data from at least 90 percent of the hours during which the process operated.
- (3) You must determine the hourly average of all recorded readings according to paragraphs (e)(3)(i) and (ii) of this section.
- (i) To calculate a valid hourly value, you must have at least three of four equally spaced data values from that hour from a continuous monitoring system (CMS) that is not out-of-control.
- (ii) Provided all of the readings recorded in accordance with paragraph (e)(3) of this section clearly demonstrate continuous compliance with the standard that applies to you, then you are not required to determine the hourly average of all recorded readings.

- (4) You must determine the rolling 3-hour average of all recorded readings for each operating period. To calculate the average for each 3-hour averaging period, you must have at least two of three of the hourly averages for that period using only average values that are based on valid data ( i.e., not from out-of-control periods).
- (5) You must record the results of each inspection, calibration, and validation check of the CPMS.
- (6) At all times, you must maintain the monitoring system in proper working order including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
- (7) Except for monitoring malfunctions, associated repairs, or required quality assurance or control activities (including calibration checks or required zero and span adjustments), you must conduct all monitoring at all times that the unit is operating. Data recorded during monitoring malfunctions, associated repairs, out-of-control periods, or required quality assurance or control activities shall not be used for purposes of calculating the emissions concentrations and percent reductions specified in §63.3370. You must use all the valid data collected during all other periods in assessing compliance of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.
- (8) Any averaging period for which you do not have valid monitoring data and such data are required constitutes a deviation, and you must notify the Administrator in accordance with §63.3400(c).
- (9) Oxidizer. If you are using an oxidizer to comply with the emission standards, you must comply with paragraphs (e)(9)(i) through (iii) of this section.
- (i) Install, calibrate, maintain, and operate temperature monitoring equipment according to the manufacturer's specifications. The calibration of the chart recorder, data logger, or temperature indicator must be verified every 3 months or the chart recorder, data logger, or temperature indicator must be replaced. You must replace the equipment whether you choose not to perform the calibration or the equipment cannot be calibrated properly.
- (ii) For an oxidizer other than a catalytic oxidizer, install, calibrate, operate, and maintain a temperature monitoring device equipped with a continuous recorder. The device must have an accuracy of ±1 percent of the temperature being monitored in degrees Celsius, or ±1 °Celsius, whichever is greater. The thermocouple or temperature sensor must be installed in the combustion chamber at a location in the combustion zone.
- (iii) For a catalytic oxidizer, install, calibrate, operate, and maintain a temperature monitoring device equipped with a continuous recorder. The device must be capable of monitoring temperature with an accuracy of ±1 percent of the temperature being monitored in degrees Celsius or ±1 degree Celsius, whichever is greater. The thermocouple or temperature sensor must be installed in the vent stream at the nearest feasible point to the inlet and outlet of the catalyst bed. Calculate the temperature rise across the catalyst.
- (10) Other types of control devices. If you use a control device other than an exidizer or wish to monitor an alternative parameter and comply with a different operating limit, you must apply to the Administrator for approval of an alternative monitoring method under §63.8(f).
- (f) Capture system monitoring. If you are complying with the emission standards in §63.3320 through the use of a capture system and control device for one or more web coating lines, you must develop a site-specific monitoring plan containing the information specified in paragraphs (f)(1) and (2) of this section for these capture systems. You must monitor the capture system in accordance with paragraph (f)(3) of this section. You must make the monitoring plan available for inspection by the permitting authority upon request.
- (1) The monitoring plan must:
- (i) Identify the operating parameter to be monitored to ensure that the capture efficiency determined during the initial compliance test is maintained; and
- (ii) Explain why this parameter is appropriate for demonstrating ongoing compliance; and
- (iii) Identify the specific monitoring procedures.
- (2) The monitoring plan must specify the operating parameter value or range of values that demonstrate compliance with the emission standards in §63.3320. The specified operating parameter value or range of values must represent the conditions present when the capture system is being properly operated and maintained.
- (3) You must conduct all capture system monitoring in accordance with the plan.

- (4) Any deviation from the operating parameter value or range of values which are monitored according to the plan will be considered a deviation from the operating limit.
- (5) You must review and update the capture system monitoring plan at least annually.
- § 63.3360 What performance tests must I conduct?
  - (a) The performance test methods you must conduct are as follows:

If you control organic HAP on any individual web coating line or any group of web coating lines by:	<del>You must:</del>
(1) Limiting organic HAP or volatile matter content of coatings	Determine the organic HAP or volatile matter and coating solids content of coating materials according to procedures in §63.3360(c) and (d). If applicable, determine the mass of volatile matter retained in the coated web or otherwise not emitted to the atmosphere according to §63.3360(g).
	Conduct a performance test for each capture and control system to determine: the destruction or removal efficiency of each control device other than solvent recovery according to §63.3360(e), and the capture efficiency of each capture system according to §63.3360(f). If applicable, determine the mass of volatile matter retained in the coated web or otherwise not emitted to the atmosphere according to §63.3360(g).

- (b) If you are using a control device to comply with the emission standards in §63.3320, you are not required to conduct a performance test to demonstrate compliance if one or more of the criteria in paragraphs (b)(1) through (3) of this section are met.
- (1) The control device is equipped with continuous emission monitors for determining inlet and outlet total organic volatile matter concentration and capture efficiency has been determined in accordance with the requirements of this subpart such that an overall organic HAP control efficiency can be calculated, and the continuous emission monitors are used to demonstrate continuous compliance in accordance with §63.3350; or
- (2) You have met the requirements of §63.7(h) (for waiver of performance testing; or
- (3) The control device is a solvent recovery system and you comply by means of a monthly liquid-liquid material balance.
- (c) Organic HAP content. If you determine compliance with the emission standards in §63.3320 by means other than determining the overall organic HAP control efficiency of a control device, you must determine the organic HAP mass fraction of each coating material "as-purchased" by following one of the procedures in paragraphs (c)(1) through (3) of this section, and determine the organic HAP mass fraction of each coating material "as-applied" by following the procedures in paragraph (c)(4) of this section. If the organic HAP content values are not determined using the procedures in paragraphs (c)(1) through (3) of this section, the owner or operator must submit an alternative test method for determining their values for approval by the Administrator in accordance with §63.7(f). The recovery efficiency of the test method must be determined for all of the target organic HAP and a correction factor, if necessary, must be determined and applied.
- (1) Method 311. You may test the coating material in accordance with Method 311 of appendix A of this part. The Method 311 determination may be performed by the manufacturer of the coating material and the results provided to the owner or operator. The organic HAP content must be calculated according to the criteria and procedures in paragraphs (c)(1)(i) through (iii) of this section.
- (i) Include each organic HAP determined to be present at greater than or equal to 0.1 mass percent for Occupational Safety and Health Administration (OSHA) defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and greater than or equal to 1.0 mass percent for other organic HAP compounds.
- (ii) Express the mass fraction of each organic HAP you include according to paragraph (c)(1)(i) of this section as a value truncated to four places after the decimal point (for example, 0.3791).
- (iii) Calculate the total mass fraction of organic HAP in the tested material by summing the counted individual organic HAP mass fractions and truncating the result to three places after the decimal point (for example, 0.763).

- (2) Method 24. For coatings, determine the volatile organic content as mass fraction of nonaqueous volatile matter and use it as a substitute for organic HAP using Method 24 of 40 CFR part 60, appendix A. The Method 24 determination may be performed by the manufacturer of the coating and the results provided to you.
- (3) Formulation data. You may use formulation data to determine the organic HAP mass fraction of a coating material. Formulation data may be provided to the owner or operator by the manufacturer of the material. In the event of an inconsistency between Method 311 (appendix A of 40 CFR part 63) test data and a facility's formulation data, and the Method 311 test value is higher, the Method 311 data will govern. Formulation data may be used provided that the information represents all organic HAP present at a level equal to or greater than 0.1 percent for OSHA-defined carcinogens as specified in 29 CFR 1910.1200(d)(1) and equal to or greater than 1.0 percent for other organic HAP compounds in any raw material used.
- (4) As-applied organic HAP mass fraction. If the as-purchased coating material is applied to the web without any solvent or other material added, then the as-applied organic HAP mass fraction is equal to the as-purchased organic HAP mass fraction. Otherwise, the as-applied organic HAP mass fraction must be calculated using Equation 1a of §63.3370.
- (d) Volatile organic and coating solids content. If you determine compliance with the emission standards in §63.3320 by means other than determining the overall organic HAP control efficiency of a control device and you choose to use the volatile organic content as a surrogate for the organic HAP content of coatings, you must determine the aspurchased volatile organic content and coating solids content of each coating material applied by following the procedures in paragraph (d)(1) or (2) of this section, and the as-applied volatile organic content and coating solids content of each coating material by following the procedures in paragraph (d)(3) of this section.
- (1) Method 24. You may determine the volatile organic and coating solids mass fraction of each coating applied using Method 24 (40 CFR part 60, appendix A.) The Method 24 determination may be performed by the manufacturer of the material and the results provided to you. If these values cannot be determined using Method 24, you must submit an alternative technique for determining their values for approval by the Administrator.
- (2) Formulation data. You may determine the volatile organic content and coating solids content of a coating material based on formulation data and may rely on volatile organic content data provided by the manufacturer of the material. In the event of any inconsistency between the formulation data and the results of Method 24 of 40 CFR part 60, appendix A, and the Method 24 results are higher, the results of Method 24 will govern.
- (3) As-applied volatile organic content and coating solids content. If the as-purchased coating material is applied to the web without any solvent or other material added, then the as-applied volatile organic content is equal to the as-purchased volatile content and the as-applied coating solids content is equal to the as-purchased coating solids content. Otherwise, the as-applied volatile organic content must be calculated using Equation 1b of §63.3370 and the as-applied coating solids content must be calculated using Equation 2 of §63.3370.
- (e) Control device efficiency. If you are using an add-on control device other than solvent recovery, such as an exidizer, to comply with the emission standards in §63.3320, you must conduct a performance test to establish the destruction or removal efficiency of the control device according to the methods and procedures in paragraphs (e)(1) and (2) of this section. During the performance test, you must establish the operating limits required by §63.3321 according to paragraph (e)(3) of this section.
- (1) An initial performance test to establish the destruction or removal efficiency of the control device must be conducted such that control device inlet and outlet testing is conducted simultaneously, and the data are reduced in accordance with the test methods and procedures in paragraphs (e)(1)(i) through (ix) of this section. You must conduct three test runs as specified in §63.7(e)(3), and each test run must last at least 1 hour.
- (i) Method 1 or 1A of 40 CFR part 60, appendix A, must be used for sample and velocity traverses to determine sampling locations.
- (ii) Method 2, 2A, 2C, 2D, 2F, or 2G of 40 CFR part 60, appendix A, must be used to determine gas volumetric flow rate.
- (iii) Method 3, 3A, or 3B of 40 CFR part 60, appendix A, must be used for gas analysis to determine dry molecular weight. You may also use as an alternative to Method 3B the manual method for measuring the oxygen, carbon dioxide, and carbon monoxide content of exhaust gas in ANSI/ASME PTC 19.10–1981, "Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus]," (incorporated by reference, see §63.14).
- (iv) Method 4 of 40 CFR part 60, appendix A, must be used to determine stack gas moisture.
- (v) The gas volumetric flow rate, dry molecular weight, and stack gas moisture must be determined during each test run specified in paragraph (f)(1)(vii) of this section.

(vi) Method 25 or 25A of 40 CFR part 60, appendix A, must be used to determine total gaseous non-methane organic matter concentration. Use the same test method for both the inlet and outlet measurements which must be conducted simultaneously. You must submit notice of the intended test method to the Administrator for approval along with notification of the performance test required under §63.7(b). You must use Method 25A if any of the conditions described in paragraphs (e)(1)(vi)(A) through (D) of this section apply to the control device.

- (A) The control device is not an oxidizer.
- (B) The control device is an exidizer but an exhaust gas volatile organic matter concentration of 50 ppmv or less is required to comply with the emission standards in §63.3320; or
- (C) The control device is an exidizer but the volatile organic matter concentration at the inlet to the control system and the required level of control are such that they result in exhaust gas volatile organic matter concentrations of 50 ppmv or less; or
- (D) The control device is an exidizer but because of the high efficiency of the control device the anticipated volatile organic matter concentration at the control device exhaust is 50 ppmv or less, regardless of inlet concentration.
- (vii) Except as provided in §63.7(e)(3), each performance test must consist of three separate runs with each run conducted for at least 1 hour under the conditions that exist when the affected source is operating under normal operating conditions. For the purpose of determining volatile organic compound concentrations and mass flow rates, the average of the results of all the runs will apply.

(viii) Volatile organic matter mass flow rates must be determined for each run specified in paragraph (e)(1)(vii) of this section using Equation 1 of this section:

$$M_f = Q_{st}C_c[12][0.0416][10^{-6}]$$
 Eq. 1

Where:

M= Total organic volatile matter mass flow rate, kilograms (kg)/hour (h).

Q<sub>sd</sub>= Volumetric flow rate of gases entering or exiting the control device, as determined according to §63.3360(e)(1)(ii), dry standard cubic meters (dscm)/h.

C<sub>e</sub>= Concentration of organic compounds as carbon, ppmv.

12.0 = Molecular weight of carbon.

0.0416 = Conversion factor for molar volume, kg-moles per cubic meter (mol/m<sup>3</sup>) (@ 293 Kelvin (K) and 760 millimeters of mercury (mmHg)).

(ix) For each run, emission control device destruction or removal efficiency must be determined using Equation 2 of this section:

$$E = \frac{M_{fi} - M_{fo}}{M_{fi}} \times 100 - Eq. 2$$

## Where:

E = Organic volatile matter control efficiency of the control device, percent.

Mij= Organic volatile matter mass flow rate at the inlet to the control device, kg/h.

M<sub>fe</sub>= Organic volatile matter mass flow rate at the outlet of the control device, kg/h.

- (x) The control device destruction or removal efficiency is determined as the average of the efficiencies determined in the test runs and calculated in Equation 2 of this section.
- (2) You must record such process information as may be necessary to determine the conditions in existence at the time of the performance test. Operations during periods of startup, shutdown, and malfunction will not constitute representative conditions for the purpose of a performance test.

- (3) Operating limits. If you are using one or more add-on control device other than a solvent recovery system for which you conduct a liquid-liquid material balance to comply with the emission standards in §63.3320, you must establish the applicable operating limits required by §63.3321. These operating limits apply to each add-on emission control device, and you must establish the operating limits during the performance test required by paragraph (e) of this section according to the requirements in paragraphs (e)(3)(i) and (ii) of this section.
- (i) Thermal oxidizer. If your add-on control device is a thermal oxidizer, establish the operating limits according to paragraphs (e)(3)(i)(A) and (B) of this section.
- (A) During the performance test, you must monitor and record the combustion temperature at least once every 15 minutes during each of the three test runs. You must monitor the temperature in the firebox of the thermal oxidizer or immediately downstream of the firebox before any substantial heat exchange occurs.
- (B) Use the data collected during the performance test to calculate and record the average combustion temperature maintained during the performance test. This average combustion temperature is the minimum operating limit for your thermal oxidizer.
- (ii) Catalytic oxidizer. If your add-on control device is a catalytic oxidizer, establish the operating limits according to paragraphs (e)(3)(ii)(A) and (B) or paragraphs (e)(3)(ii)(C) and (D) of this section.
- (A) During the performance test, you must monitor and record the temperature just before the catalyst bed and the temperature difference across the catalyst bed at least once every 15 minutes during each of the three test runs.
- (B) Use the data collected during the performance test to calculate and record the average temperature just before the catalyst bed and the average temperature difference across the catalyst bed maintained during the performance test. These are the minimum operating limits for your catalytic oxidizer.
- (C) As an alternative to monitoring the temperature difference across the catalyst bed, you may monitor the temperature at the inlet to the catalyst bed and implement a site-specific inspection and maintenance plan for your catalytic oxidizer as specified in paragraph (e)(3)(ii)(D) of this section. During the performance test, you must monitor and record the temperature just before the catalyst bed at least once every 15 minutes during each of the three test runs. Use the data collected during the performance test to calculate and record the average temperature just before the catalyst bed during the performance test. This is the minimum operating limit for your catalytic oxidizer.
- (D) You must develop and implement an inspection and maintenance plan for your catalytic oxidizer(s) for which you elect to monitor according to paragraph (e)(3)(ii)(C) of this section. The plan must address, at a minimum, the elements specified in paragraphs (e)(3)(ii)(D)(1) through (3) of this section.
- (1) Annual sampling and analysis of the catalyst activity (i.e., conversion efficiency) following the manufacturer's or catalyst supplier's recommended procedures,
- (2) Monthly inspection of the oxidizer system including the burner assembly and fuel supply lines for problems, and
- (3) Annual internal and monthly external visual inspection of the catalyst bed to check for channeling, abrasion, and settling. If problems are found, you must take corrective action consistent with the manufacturer's recommendations and conduct a new performance test to determine destruction efficiency in accordance with this section.
- (f) Capture efficiency. If you demonstrate compliance by meeting the requirements of §63.3370(e), (f), (g), (h), (i)(2), (k), (n)(2) or (3), or (p), you must determine capture efficiency using the procedures in paragraph (f)(1), (2), or (3) of this section, as applicable.
- (1) You may assume your capture efficiency equals 100 percent if your capture system is a permanent total enclosure (PTE). You must confirm that your capture system is a PTE by demonstrating that it meets the requirements of section 6 of EPA Method 204 of 40 CFR part 51, appendix M, and that all exhaust gases from the enclosure are delivered to a control device.
- (2) You may determine capture efficiency according to the protocols for testing with temporary total enclosures that are specified in Methods 204 and 204A through F of 40 CFR part 51, appendix M. You may exclude never-controlled work stations from such capture efficiency determinations.
- (3) You may use any capture efficiency protocol and test methods that satisfy the criteria of either the Data Quality Objective or the Lower Confidence Limit approach as described in appendix A of subpart KK of this part. You may exclude never-controlled work stations from such capture efficiency determinations.
- (g) Volatile matter retained in the coated web or otherwise not emitted to the atmosphere. You may choose to take into account the mass of volatile matter retained in the coated web after curing or drying or otherwise not emitted to

the atmosphere when determining compliance with the emission standards in §63.3320. If you choose this option, you must develop a testing protocol to determine the mass of volatile matter retained in the coated web or otherwise not emitted to the atmosphere and submit this protocol to the Administrator for approval. You must submit this protocol with your site-specific test plan under §63.7(f). If you intend to take into account the mass of volatile matter retained in the coated web after curing or drying or otherwise not emitted to the atmosphere and demonstrate compliance according to §63.3370(c)(3), (c)(4), (c)(5), or (d), then the test protocol you submit must determine the mass of organic HAP retained in the coated web or otherwise not emitted to the atmosphere. Otherwise, compliance must be shown using the volatile organic matter content as a surrogate for the HAP content of the coatings.

(h) Control devices in series. If you use multiple control devices in series to comply with the emission standards in §63.3320, the performance test must include, at a minimum, the inlet to the first control device in the series, the outlet of the last control device in the series, and all intermediate streams (e.g., gaseous exhaust to the atmosphere or a liquid stream from a recovery device) that are not subsequently treated by any of the control devices in the series.

#### Requirements for Showing Compliance

§ 63.3370 How do I demonstrate compliance with the emission standards?

(a) A summary of how you must demonstrate compliance follows:

If you choose to demonstrate compliance by:	Then you must demonstrate that:	To accomplish this:
(1) Use of "as- purchased" compliant coating materials	(i) Each coating material used at an existing affected source does not exceed 0.04 kg organic HAP per kg coating material, and each coating material used at a new affected source does not exceed 0.016 kg organic HAP per kg coating material as purchased; or	Follow the procedures set out in §63.3370(b).
_	(ii) Each coating material used at an existing affected source does not exceed 0.2 kg organic HAP per kg coating solids, and each coating material used at a new affected source does not exceed 0.08 kg organic HAP per kg coating solids as-purchased	Follow the procedures set out in §63.3370(b).
(2) Use of "as- applied" compliant coating materials	(i) Each coating material used at an existing affected source does not exceed 0.04 kg organic HAP per kg coating material, and each coating material used at a new affected source does not exceed 0.016 kg organic HAP per kg coating material as-applied; or	Follow the procedures set out in §63.3370(c)(1). Use either Equation 1a or b of §63.3370 to determine compliance with §63.3320(b)(2) in accordance with §63.3370(c)(5)(i).
	(ii) Each coating material used at an existing affected source does not exceed 0.2 kg organic HAP per kg coating solids, and each coating material used at a new affected source does not exceed 0.08 kg organic HAP per kg coating solids as-applied; or	Follow the procedures set out in \$63.3370(c)(2). Use Equations 2 and 3 of \$63.3370 to determine compliance with \$63.3320(b)(3) in accordance with \$63.3370(c)(5)(i).
	(iii) Monthly average of all coating materials used at an existing affected source does not exceed 0.04 kg organic HAP per kg coating material, and monthly average of all coating materials	Follow the procedures set out in §63.3370(c)(3). Use Equation 4 of §63.3370 to determine compliance with §63.3320(b)(2) in accordance with §63.3370(c)(5)(ii).

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	used at a new affected source does not exceed 0.016 kg organic HAP per kg coating material as-applied on a monthly average basis; or	
_	(iv) Monthly average of all coating materials used at an existing affected source does not exceed 0.2 kg organic HAP per kg coating solids, and monthly average of all coating materials used at a new affected source does not exceed 0.08 kg organic HAP per kg coating solids as applied on a monthly average basis	Follow the procedures set out in §63.3370(c)(4). Use Equation 5 of §63.3370 to determine compliance with §63.3320(b)(3) in accordance with §63.3370(c)(5)(ii).
(3) Tracking total monthly organic HAP applied	Total monthly organic HAP applied does not exceed the calculated limit based on emission limitations	Follow the procedures set out in §63.3370(d). Show that total monthly HAP applied (Equation 6 of §63.3370) is less than the calculated equivalent allowable organic HAP (Equation 13a or b of §63.3370).
(4) Use of a capture system and control device	(i) Overall organic HAP control efficiency is equal to 95 percent at an existing affected source and 98 percent at a new affected source on a monthly basis; or exidizer outlet organic HAP concentration is no greater than 20 ppmv by compound and capture efficiency is 100 percent; or operating parameters are continuously monitored; of	Follow the procedures set out in §63.3370(e) to determine compliance with §63.3320(b)(1) according to §63.3370(i) if using a solvent recovery device, or §63.3370(j) if using a control device and CPMS, or §63.3370(k) if using an oxidizer.
_	(ii) Overall organic HAP emission rate does not exceed 0.2 kg organic HAP per kg coating solids for an existing affected source or 0.08 kg organic HAP per kg coating solids for a new affected source on a monthly average as-applied basis;	Follow the procedures set out in §63.3370(f) to determine compliance with §63.3320(b)(3) according to §63.3370(i) if using a solvent recovery device, or §63.3370(k) if using an oxidizer.
_	(iii) Overall organic HAP emission rate does not exceed 0.04 kg organic HAP per kg coating material for an existing affected source or 0.016 kg organic HAP per kg coating material for a new affected source on a monthly average as-applied basis; or	Follow the procedures set out in §63.3370(g) to determine compliance with §63.3320(b)(2) according to §63.3370(i) if using a solvent recovery device, or §63.3370(k) if using an exidizer.
	(iv) Overall organic HAP emission rate does not exceed the calculated limit based on emission limitations	Follow the procedures set out in §63.3370(h). Show that the monthly organic HAP emission rate is less than the calculated equivalent allowable organic HAP emission rate (Equation 13a or b of §63.3370). Calculate the monthly organic HAP emission rate according to §63.3370(i) if using a solvent recovery device, or §63.3370(k) if using an oxidizer.
(5) Use of multiple capture and/or control	(i) Overall organic HAP control efficiency is equal to 95 percent at an existing affected source and 98 percent at a new	to determine compliance with §63.3320(b)(1)

<del>devices</del>	affected source on a monthly basis; or	
	(ii) Average equivalent organic HAP emission rate does not exceed 0.2 kg organic HAP per kg coating solids for an existing affected source or 0.08 kg organic HAP per kg coating solids for a new affected source on a monthly average as-applied basis; or	Follow the procedures set out in §63.3370(f) to determine compliance with §63.3320(b)(3) according to §63.3370(n).
_	(iii) Average equivalent organic HAP emission rate does not exceed 0.04 kg organic HAP per kg coating material for an existing affected source or 0.016 kg organic HAP per kg coating material for a new affected source on a monthly average as-applied basis; or	Follow the procedures set out in §63.3370(g) to determine compliance with §63.3320(b)(2) according to §63.3370(n).
_	(iv) Average equivalent organic HAP emission rate does not exceed the calculated limit based on emission limitations	Follow the procedures set out in §63.3370(h). Show that the monthly organic HAP emission rate is less than the calculated equivalent allowable organic HAP emission rate (Equation 13a or b of §63.3370) according to §63.3370(n).
(6) Use of a combination of compliant coatings and control devices	(i) Average equivalent organic HAP emission rate does not exceed 0.2 kg organic HAP per kg coating solids for an existing affected source or 0.08 kg organic HAP per kg coating solids for a new affected source on a monthly average as-applied basis; or	Follow the procedures set out in §63.3370(f) to determine compliance with §63.3320(b)(3) according to §63.3370(n).
_	(ii) Average equivalent organic HAP emission rate does not exceed 0.04 kg organic HAP per kg coating material for an existing affected source or 0.016 kg organic HAP per kg coating material for a new affected source on a monthly average as-applied basis; or	Follow the procedures set out in §63.3370(g) to determine compliance with §63.3320(b)(2) according to §63.3370(n).
_	(iii) Average equivalent organic HAP emission rate does not exceed the calculated limit based on emission limitations	Follow the procedures set out in §63.3370(h). Show that the monthly organic HAP emission rate is less than the calculated equivalent allowable organic HAP emission rate (Equation 13a or b of §63.3370) according to §63.3370(n).

(b) As-purchased "compliant" coating materials. (1) If you comply by using coating materials that individually meet the emission standards in §63.3320(b)(2) or (3), you must demonstrate that each coating material applied during the month at an existing affected source contains no more than 0.04 mass fraction organic HAP or 0.2 kg organic HAP per kg coating solids, and that each coating material applied during the month at a new affected source contains no more than 0.016 mass fraction organic HAP or 0.08 kg organic HAP per kg coating solids on an as-purchased basis as determined in accordance with §63.3360(c).

(2) You are in compliance with emission standards in §63.3320(b)(2) and (3) if each coating material applied at an existing affected source is applied as-purchased and contains no more than 0.04 kg organic HAP per kg coating material or 0.2 kg organic HAP per kg coating solids, and each coating material applied at a new affected source is applied as-purchased and contains no more than 0.016 kg organic HAP per kg coating material or 0.08 kg organic HAP per kg coating solids.

(c) As-applied "compliant" coating materials. If you comply by using coating materials that meet the emission standards in §63.3320(b)(2) or (3) as-applied, you must demonstrate compliance by following one of the procedures in paragraphs (c)(1) through (4) of this section. Compliance is determined in accordance with paragraph (c)(5) of this section.

- (1) Each coating material as applied meets the mass fraction of coating material standard (§63.3320(b)(2)). You must demonstrate that each coating material applied at an existing affected source during the month contains no more than 0.04 kg organic HAP per kg coating material applied, and each coating material applied at a new affected source contains no more than 0.016 kg organic HAP per kg coating material applied as determined in accordance with paragraphs (c)(1)(i) and (ii) of this section. You must calculate the as-applied organic HAP content of as-purchased coating materials which are reduced, thinned, or diluted prior to application.
- (i) Determine the organic HAP content or volatile organic content of each coating material applied on an as-purchased basis in accordance with §63.3360(c).
- (ii) Calculate the as-applied organic HAP content of each coating material using Equation 1a of this section:

$$\frac{C_{ahi} = \frac{\left(C_{hi}M_i + \sum\limits_{j=1}^q C_{hij}M_{ij}\right)}{M_i + \sum\limits_{j=1}^q M_{ij}} \frac{Eq. \ 1a}{}$$

Where:

C<sub>ahi</sub>= Monthly average, as-applied, organic HAP content of coating material, i, expressed as a mass fraction, kg/kg.

Ghi= Organic HAP content of coating material, i, as purchased, expressed as a mass fraction, kg/kg.

M<sub>i</sub>= Mass of as purchased coating material, i, applied in a month, kg.

q = number of different materials added to the coating material.

C<sub>hij</sub>= Organic HAP content of material, j, added to as-purchased coating material, i, expressed as a mass fraction, kg/kg.

M<sub>ii</sub>= Mass of material, j, added to as purchased coating material, i, in a month, kg.

M<sub>i</sub>= Mass of as-purchased coating material, i, applied in a month, kg.

or calculate the as-applied volatile organic content of each coating material using Equation 1b of this section:

$$\begin{aligned} \mathbf{C}_{avi} = & \frac{\left(\mathbf{C}_{vi}\mathbf{M}_i + \sum\limits_{j=1}^{q} \mathbf{C}_{vij}\mathbf{M}_{ij}\right)}{\mathbf{M}_i + \sum\limits_{j=1}^{q} \mathbf{M}_{ij}} & \quad \mathbf{Eq. 1b} \end{aligned}$$

Where:

C<sub>avi</sub>= Monthly average, as-applied, volatile organic content of coating material, i, expressed as a mass fraction, kg/kg.

C<sub>vi</sub>= Volatile organic content of coating material, i, expressed as a mass fraction, kg/kg.

Mi= Mass of as-purchased coating material, i, applied in a month, kg.

q = Number of different materials added to the coating material.

G<sub>vij</sub>= Volatile organic content of material, j, added to as-purchased coating material, i, expressed as a mass fraction, kg/kg.

M<sub>ii</sub>= Mass of material, j, added to as-purchased coating material, i, in a month, kg.

- (2) Each coating material as-applied meets the mass fraction of coating solids standard (§63.3320(b)(3)). You must demonstrate that each coating material applied at an existing affected source contains no more than 0.20 kg of organic HAP per kg of coating solids applied and each coating material applied at a new affected source contains no more than 0.08 kg of organic HAP per kg of coating solids applied. You must demonstrate compliance in accordance with paragraphs (c)(2)(i) and (ii) of this section.
- (i) Determine the as-applied coating solids content of each coating material following the procedure in §63.3360(d). You must calculate the as-applied coating solids content of coating materials which are reduced, thinned, or diluted prior to application, using Equation 2 of this section:

$$\frac{C_{asi} = \frac{\left(C_{si}M_i + \sum_{j=1}^{q} C_{sij}M_{ij}\right)}{M_i + \sum_{j=1}^{q} M_{ij}} = \frac{Eq. 2}{}$$

Where:

Csi= Coating solids content of coating material, i, expressed as a mass fraction, kg/kg.

Mi= Mass of as-purchased coating material, i, applied in a month, kg.

q = Number of different materials added to the coating material.

G<sub>sij</sub>= Coating solids content of material, j, added to as-purchased coating material, i, expressed as a mass-fraction, kg/kg.

M<sub>ii</sub>= Mass of material, j, added to as-purchased coating material, i, in a month, kg.

(ii) Calculate the as-applied organic HAP to coating solids ratio using Equation 3 of this section:

$$\frac{H_{si} = \frac{C_{ahi}}{C_{asi}} \qquad Eq. 3}{C_{asi}}$$

Where:

H<sub>si</sub>= As-applied, organic HAP to coating solids ratio of coating material, i.

C<sub>ahi</sub>= Monthly average, as-applied, organic HAP content of coating material, i, expressed as a mass fraction, kg/kg.

G<sub>asi</sub>= Monthly average, as-applied, coating solids content of coating material, i, expressed as a mass fraction, kg/kg.

(3) Monthly average organic HAP content of all coating materials as applied is less than the mass percent limit (§63.3320(b)(2)). Demonstrate that the monthly average as applied organic HAP content of all coating materials applied at an existing affected source is less than 0.04 kg organic HAP per kg of coating material applied, and all coating materials applied at a new affected source are less than 0.016 kg organic HAP per kg of coating material applied, as determined by Equation 4 of this section:

$$\begin{split} \boldsymbol{H}_{L} = & \frac{\sum\limits_{i=1}^{p} \boldsymbol{C}_{hi} \boldsymbol{M}_{i} + \sum\limits_{j=1}^{q} \boldsymbol{C}_{hij} \boldsymbol{M}_{ij} - \boldsymbol{M}_{vret}}{\sum\limits_{i=1}^{p} \boldsymbol{M}_{i} + \sum\limits_{j=1}^{q} \boldsymbol{M}_{ij}} & \quad \boldsymbol{Eq. 4} \end{split}$$

#### Where:

H<sub>L</sub>= Monthly average, as-applied, organic HAP content of all coating materials applied, expressed as kg organic HAP per kg of coating material applied, kg/kg.

p = Number of different coating materials applied in a month.

G<sub>H</sub>= Organic HAP content of coating material, i, as purchased, expressed as a mass fraction, kg/kg.

M<sub>i</sub>= Mass of as-purchased coating material, i, applied in a month, kg.

q = Number of different materials added to the coating material.

C<sub>hij</sub>= Organic HAP content of material, j, added to as-purchased coating material, i, expressed as a mass fraction, kg/kg.

M<sub>ii</sub>= Mass of material, i, added to as purchased coating material, i, in a month, kg.

M<sub>vret</sub>= Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg. The value of this term will be zero in all cases except where you choose to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in §63.3370.

(4) Monthly average organic HAP content of all coating materials as-applied is less than the mass fraction of coating solids limit (\$63.3320(b)(3)). Demonstrate that the monthly average as applied organic HAP content on the basis of coating solids applied of all coating materials applied at an existing affected source is less than 0.20 kg organic HAP per kg coating solids applied, and all coating materials applied at a new affected source are less than 0.08 kg organic HAP per kg coating solids applied, as determined by Equation 5 of this section:

$$\begin{split} \underline{H_{S}} = & \frac{\sum\limits_{i=1}^{p} C_{hi} M_{i} + \sum\limits_{j=1}^{q} C_{hij} M_{ij} - M_{wret}}{\sum\limits_{i=1}^{p} C_{Si} M_{i} + \sum\limits_{j=1}^{q} C_{Sij} M_{ij}} & \qquad \quad Eq. \ 5 \end{split} \label{eq:HS}$$

#### Where:

H<sub>s</sub>= Monthly average, as-applied, organic HAP to coating solids ratio, kg organic HAP/kg coating solids applied.

p = Number of different coating materials applied in a month.

Chi= Organic HAP content of coating material, i, as-purchased, expressed as a mass fraction, kg/kg.

M<sub>i</sub>= Mass of as-purchased coating material, i, applied in a month, kg.

q = Number of different materials added to the coating material.

C<sub>hij</sub>= Organic HAP content of material, j, added to as-purchased coating material, i, expressed as a mass fraction, kg/kg.

M<sub>ii</sub>= Mass of material, j, added to as purchased coating material, i, in a month, kg.

M<sub>vret</sub>= Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg. The value of this term will be zero in all cases except where you choose to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in §63.3370.

Csi= Coating solids content of coating material, i, expressed as a mass fraction, kg/kg.

Avery Dennison MFD

Page 29 of 49

Lowell, Indiana

Significant Permit Modification No. 089-28616-00407

Permit Reviewer: Michael S. Brooks

G<sub>sij</sub>= Coating solids content of material, j, added to as-purchased coating material, i, expressed as a mass-fraction, kg/kg.

- (5) The affected source is in compliance with emission standards in §63.3320(b)(2) or (3) if:
- (i) The organic HAP content of each coating material as-applied at an existing affected source is no more than 0.04 kg organic HAP per kg coating material or 0.2 kg organic HAP per kg coating solids, and the organic HAP content of each coating material as-applied at a new affected source contains no more than 0.016 kg organic HAP per kg coating material or 0.08 kg organic HAP per kg coating solids; or
- (ii) The monthly average organic HAP content of all as applied coating materials at an existing affected source are no more than 0.04 kg organic HAP per kg coating material or 0.2 kg organic HAP per kg coating solids, and the monthly average organic HAP content of all as-applied coating materials at a new affected source is no more than 0.016 kg organic HAP per kg coating material or 0.08 kg organic HAP per kg coating solids.
- (d) Monthly allowable organic HAP applied. Demonstrate that the total monthly organic HAP applied as determined by Equation 6 of this section is less than the calculated equivalent allowable organic HAP as determined by Equation 13a or b in paragraph (I) of this section:

$$\underline{H_m} = \sum_{i=1}^{p} \underline{C_{ki}} \underline{M_i} + \sum_{i=1}^{q} \underline{C_{kij}} \underline{M_{ij}} - \underline{M_{wet}} \qquad \underline{Eq.~6}.$$

Where:

H<sub>m</sub>= Total monthly organic HAP applied, kg.

p = Number of different coating materials applied in a month.

Chi= Organic HAP content of coating material, i, as-purchased, expressed as a mass fraction, kg/kg.

M<sub>i</sub>= Mass of as-purchased coating material, i, applied in a month, kg.

q = Number of different materials added to the coating material.

C<sub>hij</sub>= Organic HAP content of material, j, added to as-purchased coating material, i, expressed as a mass fraction, kg/kg.

Mi= Mass of material, j, added to as-purchased coating material, i, in a month, kg.

M<sub>vret</sub>= Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg. The value of this term will be zero in all cases except where you choose to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in §63.3370.

- (e) Capture and control to reduce emissions to no more than allowable limit (§63.3320(b)(1)). Operate a capture system and control device and demonstrate an overall organic HAP control efficiency of at least 95 percent at an existing affected source and at least 98 percent at a new affected source for each month, or operate a capture system and oxidizer so that an outlet organic HAP concentration of no greater than 20 ppmv by compound on a dry basis is achieved as long as the capture efficiency is 100 percent as detailed in §63.3320(b)(4). Unless one of the cases described in paragraph (e)(1), (2), or (3) of this section applies to the affected source, you must either demonstrate compliance in accordance with the procedure in paragraph (i) of this section when emissions from the affected source are controlled by a solvent recovery device, or the procedure in paragraph (k) of this section when emissions are controlled by an oxidizer or demonstrate compliance for a web coating line by operating each capture system and each control device and continuous parameter monitoring according to the procedures in paragraph (j) of this section.
- (1) If the affected source has only always-controlled work stations and operates more than one capture system or more than one control device, you must demonstrate compliance in accordance with the provisions of either paragraph (n) or (p) of this section.
- (2) If the affected source operates one or more never-controlled work stations or one or more intermittently-controlled work stations, you must demonstrate compliance in accordance with the provisions of paragraph (n) of this section.

- (3) An alternative method of demonstrating compliance with §63.3320(b)(1) is the installation of a PTE around the web coating line that achieves 100 percent capture efficiency and ventilation of all organic HAP emissions from the total enclosure to an oxidizer with an outlet organic HAP concentration of no greater than 20 ppmv by compound on a dry basis. If this method is selected, you must demonstrate compliance by following the procedures in paragraphs (e)(3)(i) and (ii) of this section. Compliance is determined according to paragraph (e)(3)(iii) of this section.
- (i) Demonstrate that a total enclosure is installed. An enclosure that meets the requirements in §63.3360(f)(1) will be considered a total enclosure.
- (ii) Determine the organic HAP concentration at the outlet of your total enclosure using the procedures in paragraph (e)(3)(ii)(A) or (B) of this section.
- (A) Determine the control device efficiency using Equation 2 of §63.3360 and the applicable test methods and procedures specified in §63.3360(e).
- (B) Use a CEMS to determine the organic HAP emission rate according to paragraphs (i)(2)(i) through (x) of this section.
- (iii) You are in compliance if the installation of a total enclosure is demonstrated and the organic HAP concentration at the outlet of the incinerator is demonstrated to be no greater than 20 ppmv by compound on a dry basis.
- (f) Capture and control to achieve mass fraction of coating solids applied limit (§63.3320(b)(3)). Operate a capture system and control device and limit the organic HAP emission rate from an existing affected source to no more than 0.20 kg organic HAP emitted per kg coating solids applied, and from a new affected source to no more than 0.08 kg organic HAP emitted per kg coating solids applied as determined on a monthly average as-applied basis. If the affected source operates more than one capture system, more than one control device, one or more never-controlled work stations, or one or more intermittently-controlled work stations, then you must demonstrate compliance in accordance with the provisions of paragraph (n) of this section. Otherwise, you must demonstrate compliance following the procedure in paragraph (i) of this section when emissions from the affected source are controlled by a solvent recovery device or the procedure in paragraph (k) of this section when emissions are controlled by an oxidizer.
- (g) Capture and control to achieve mass fraction limit (§63.3320(b)(2)). Operate a capture system and control device and limit the organic HAP emission rate to no more than 0.04 kg organic HAP emitted per kg coating material applied at an existing affected source, and no more than 0.016 kg organic HAP emitted per kg coating material applied at a new affected source as determined on a monthly average as-applied basis. If the affected source operates more than one capture system, more than one control device, one or more never-controlled work stations, or one or more intermittently controlled work stations, then you must demonstrate compliance in accordance with the provisions of paragraph (n) of this section. Otherwise, you must demonstrate compliance following the procedure in paragraph (i) of this section when emissions from the affected source are controlled by a solvent recovery device or the procedure in paragraph (k) of this section when emissions are controlled by an oxidizer.
- (h) Capture and control to achieve allowable emission rate. Operate a capture system and control device and limit the monthly organic HAP emissions to less than the allowable emissions as calculated in accordance with paragraph (I) of this section. If the affected source operates more than one capture system, more than one control device, one or more never-controlled work stations, or one or more intermittently controlled work stations, then you must demonstrate compliance in accordance with the provisions of paragraph (n) of this section. Otherwise, the owner or operator must demonstrate compliance following the procedure in paragraph (i) of this section when emissions from the affected source are controlled by a solvent recovery device or the procedure in paragraph (k) of this section when emissions are controlled by an oxidizer.
- (i) Solvent recovery device compliance demonstration. If you use a solvent recovery device to control emissions, you must show compliance by following the procedures in either paragraph (i)(1) or (2) of this section:
- (1) Liquid-liquid material balance. Perform a monthly liquid-liquid material balance as specified in paragraphs (i)(1)(i) through (v) of this section and use the applicable equations in paragraphs (i)(1)(vi) through (ix) of this section to convert the data to units of the selected compliance option in paragraphs (e) through (h) of this section. Compliance is determined in accordance with paragraph (i)(1)(x) of this section.
- (i) Determine the mass of each coating material applied on the web coating line or group of web coating lines controlled by a common solvent recovery device during the month.
- (ii) If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied, organic HAP emission rate based on coating material applied, or emission of less than the calculated allowable organic HAP, determine the organic HAP content of each coating material as-applied during the month following the procedure in §63.3360(c).

(iii) Determine the volatile organic content of each coating material as-applied during the month following the procedure in §63.3360(d).

- (iv) If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied or emission of less than the calculated allowable organic HAP, determine the coating solids content of each coating material applied during the month following the procedure in §63.3360(d).
- (v) Determine and monitor the amount of volatile organic matter recovered for the month according to the procedures in §63.3350(d).
- (vi) Recovery efficiency. Calculate the volatile organic matter collection and recovery efficiency using Equation 7 of this section:

$$\frac{R_{\text{V}} = \frac{M_{\text{vx}} + M_{\text{vret}}}{\sum\limits_{i=1}^{p} C_{\text{vi}} M_i + \sum\limits_{i=1}^{q} C_{\text{vij}} M_{ij}} \times 100 \quad Eq. \ 7}{\sum_{i=1}^{q} C_{\text{vi}} M_i + \sum_{i=1}^{q} C_{\text{vij}} M_{ij}}$$

Where:

Ry= Organic volatile matter collection and recovery efficiency, percent.

M<sub>vr</sub>= Mass of volatile matter recovered in a month, kg.

M<sub>vret</sub>= Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg. The value of this term will be zero in all cases except where you choose to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in §63.3370.

p = Number of different coating materials applied in a month.

G<sub>vi</sub>= Volatile organic content of coating material, i, expressed as a mass fraction, kg/kg.

M<sub>i</sub>= Mass of as-purchased coating material, i, applied in a month, kg.

q = Number of different materials added to the coating material.

G<sub>vij</sub>= Volatile organic content of material, j, added to as purchased coating material, i, expressed as a mass fraction, kg/kg.

Mi= Mass of material, j, added to as-purchased coating material, i, in a month, kg.

(vii) Organic HAP emitted. Calculate the organic HAP emitted during the month using Equation 8 of this section:

$$H_{e} = \left[1 - \frac{R_{v}}{100}\right] \left[\sum_{i=1}^{p} C_{hi}M_{i} + \sum_{j=1}^{q} C_{hij}M_{ij} - M_{wet}\right] - Eq. 8$$

Where:

H<sub>e</sub>= Total monthly organic HAP emitted, kg.

R<sub>y</sub>= Organic volatile matter collection and recovery efficiency, percent.

p = Number of different coating materials applied in a month.

Chi= Organic HAP content of coating material, i, as-purchased, expressed as a mass fraction, kg/kg.

M<sub>i</sub>= Mass of as-purchased coating material, i, applied in a month, kg.

q = Number of different materials added to the coating material.

C<sub>hij</sub>= Organic HAP content of material, j, added to as-purchased coating material, i, expressed as a mass fraction, kg/kg.

M<sub>ii</sub>= Mass of material, j, added to as-purchased coating material, i, in a month, kg.

M<sub>vret</sub>= Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg. The value of this term will be zero in all cases except where you choose to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in §63.3370.

(viii) Organic HAP emission rate based on coating solids applied. Calculate the organic HAP emission rate based on coating solids applied using Equation 9 of this section:

$$\frac{L = \frac{H_{\text{e}}}{\sum\limits_{i=1}^{p} C_{\text{si}} M_{i} + \sum\limits_{j=1}^{q} C_{\text{sij}} M_{ij}} \qquad \text{Eq. 9}$$

#### Where:

L = Mass organic HAP emitted per mass of coating solids applied, kg/kg.

H<sub>e</sub>= Total monthly organic HAP emitted, kg.

p = Number of different coating materials applied in a month.

C<sub>si</sub>= Coating solids content of coating material, i, expressed as a mass fraction, kg/kg.

M<sub>i</sub>= Mass of as-purchased coating material, i, applied in a month, kg.

q = Number of different materials added to the coating material.

C<sub>sij</sub>= Coating solids content of material, j, added to as-purchased coating material, i, expressed as a massfraction, kg/kg.

M<sub>ii</sub>= Mass of material, i, added to as purchased coating material, i, in a month, kg.

(ix) Organic HAP emission rate based on coating materials applied. Calculate the organic HAP emission rate based on coating material applied using Equation 10 of this section:

$$\frac{S = \frac{H_e}{\sum_{i=1}^{p} M_i + \sum_{j=1}^{q} M_{ij}} \qquad Eq. 10}{\sum_{i=1}^{q} M_i + \sum_{j=1}^{q} M_{ij}}$$

#### Where:

S = Mass organic HAP emitted per mass of material applied, kg/kg.

He= Total monthly organic HAP emitted, kg.

p = Number of different coating materials applied in a month.

Mi= Mass of as-purchased coating material, i, applied in a month, kg.

q = Number of different materials added to the coating material.

Mi= Mass of material, j, added to as-purchased coating material, i, in a month, kg.

(x) You are in compliance with the emission standards in §63.3320(b) if:

- (A) The volatile organic matter collection and recovery efficiency is 95 percent or greater at an existing affected source and 98 percent or greater at a new affected source; or
- (B) The organic HAP emission rate based on coating solids applied is no more than 0.20 kg organic HAP per kg coating solids applied at an existing affected source and no more than 0.08 kg organic HAP per kg coating solids applied at a new affected source; or
- (C) The organic HAP emission rate based on coating material applied is no more than 0.04 kg organic HAP per kg coating material applied at an existing affected source and no more than 0.016 kg organic HAP per kg coating material applied at a new affected source; or
- (D) The organic HAP emitted during the month is less than the calculated allowable organic HAP as determined using paragraph (I) of this section.
- (2) Continuous emission monitoring of capture system and control device performance. Demonstrate initial compliance through a performance test on capture efficiency and continuing compliance through continuous emission monitors and continuous monitoring of capture system operating parameters following the procedures in paragraphs (i)(2)(i) through (vii) of this section. Use the applicable equations specified in paragraphs (i)(2)(viii) through (x) of this section to convert the monitoring and other data into units of the selected compliance option in paragraphs (e) through (h) of this section. Compliance is determined in accordance with paragraph (i)(2)(xi) of this section.
- (i) Control device efficiency. Continuously monitor the gas stream entering and exiting the control device to determine the total organic volatile matter mass flow rate (e.g., by determining the concentration of the vent gas in grams per cubic meter and the volumetric flow rate in cubic meters per second such that the total organic volatile matter mass flow rate in grams per second can be calculated) such that the control device efficiency of the control device can be calculated for each month using Equation 2 of §63.3360.
- (ii) Capture efficiency monitoring. Whenever a web coating line is operated, continuously monitor the operating parameters established in accordance with §63.3350(f) to ensure capture efficiency.
- (iii) Determine the percent capture efficiency in accordance with §63.3360(f).
- (iv) Control efficiency. Calculate the overall organic HAP control efficiency achieved for each month using Equation 11 of this section:

$$R = \frac{(E)(CE)}{100}$$
 Eq. 11

#### Where:

R = Overall organic HAP control efficiency, percent.

E = Organic volatile matter control efficiency of the control device, percent.

CE = Organic volatile matter capture efficiency of the capture system, percent.

- (v) If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied, organic HAP emission rate based on coating materials applied, or emission of less than the calculated allowable organic HAP, determine the mass of each coating material applied on the web coating line or group of web coating lines controlled by a common control device during the month.
- (vi) If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied, organic HAP emission rate based on coating material applied, or emission of less than the calculated allowable organic HAP, determine the organic HAP content of each coating material as-applied during the month following the procedure in §63.3360(c).
- (vii) If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied or emission of less than the calculated allowable organic HAP, determine the coating solids content of each coating material as applied during the month following the procedure in §63.3360(d).
- (viii) Organic HAP emitted. Calculate the organic HAP emitted during the month for each month using Equation 12 of this section:

Avery Dennison MFD

Page 34 of 49

Lowell, Indiana

Significant Permit Modification No. 089-28616-00407

Permit Reviewer: Michael S. Brooks

$$\frac{\mathbf{H}_{e} = (1 - R) \left( \sum_{i=1}^{p} \mathbf{C}_{ahi} \mathbf{M}_{i} \right) - \mathbf{M}_{wet} - Eq. 12$$

Where:

H<sub>e</sub>= Total monthly organic HAP emitted, kg.

R = Overall organic HAP control efficiency, percent.

p = Number of different coating materials applied in a month.

G<sub>ahi</sub>= Monthly average, as-applied, organic HAP content of coating material, i, expressed as a mass fraction, kg/kg.

M<sub>i</sub>= Mass of as-purchased coating material, i, applied in a month, kg.

M<sub>vret</sub>= Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg. The value of this term will be zero in all cases except where you choose to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in this section.

- (ix) Organic HAP emission rate based on coating solids applied. Calculate the organic HAP emission rate based on coating solids applied using Equation 9 of this section.
- (x) Organic HAP emission rate based on coating materials applied. Calculate the organic HAP emission rate based on coating material applied using Equation 10 of this section.
- (xi) Compare actual performance to the performance required by compliance option. The affected source is in compliance with the emission standards in §63.3320(b) for each month if the capture system is operated such that the average capture system operating parameter is greater than or less than (as appropriate) the operating parameter value established in accordance with §63.3350(f); and
- (A) The organic volatile matter collection and recovery efficiency is 95 percent or greater at an existing affected source and 98 percent or greater at a new affected source; or
- (B) The organic HAP emission rate based on coating solids applied is no more than 0.20 kg organic HAP per kg coating solids applied at an existing affected source and no more than 0.08 kg organic HAP per kg coating solids applied at a new affected source; or
- (C) The organic HAP emission rate based on coating material applied is no more than 0.04 kg organic HAP per kg coating material applied at an existing affected source and no more than 0.016 kg organic HAP per kg coating material applied at a new affected source; or
- (D) The organic HAP emitted during the month is less than the calculated allowable organic HAP as determined using paragraph (I) of this section.
- (j) Capture and control system compliance demonstration procedures using a CPMS. If you use an add-on control device, you must demonstrate initial compliance for each capture system and each control device through performance tests and demonstrate continuing compliance through continuous monitoring of capture system and control device operating parameters as specified in paragraphs (j)(1) through (3) of this section. Compliance is determined in accordance with paragraph (j)(4) of this section.
- (1) Determine the control device destruction or removal efficiency using the applicable test methods and procedures in §63.3360(c).
- (2) Determine the emission capture efficiency in accordance with §63.3360(f).
- (3) Whenever a web coating line is operated, continuously monitor the operating parameters established according to §63.3350(e) and (f).
- (4) You are in compliance with the emission standards in §63.3320(b) if the control device is operated such that the average operating parameter value is greater than or less than (as appropriate) the operating parameter value established in accordance with §63.3360(e) for each 3-hour period, and the capture system operating parameter is

operated at an average value greater than or less than (as appropriate) the operating parameter value established in accordance with §63.3350(f); and

- (i) The overall organic HAP control efficiency is 95 percent or greater at an existing affected source and 98 percent or greater at a new affected source; or
- (ii) The organic HAP emission rate based on coating solids applied is no more than 0.20 kg organic HAP per kg coating solids applied at an existing affected source and no more than 0.08 kg organic HAP per kg coating solids applied at a new affected source; or
- (iii) The organic HAP emission rate based on coating material applied is no more than 0.04 kg organic HAP per kg coating material applied at an existing affected source and no more than 0.016 kg organic HAP per kg coating material applied at a new affected source; or
- (iv) The organic HAP emitted during the month is less than the calculated allowable organic HAP as determined using paragraph (I) of this section.
- (k) Oxidizer compliance demonstration procedures. If you use an exidizer to control emissions, you must show compliance by following the procedures in paragraph (k)(1) of this section. Use the applicable equations specified in paragraph (k)(2) of this section to convert the monitoring and other data into units of the selected compliance option in paragraph (e) through (h) of this section. Compliance is determined in accordance with paragraph (k)(3) of this section.
- (1) Demonstrate initial compliance through performance tests of capture efficiency and control device efficiency and continuing compliance through continuous monitoring of capture system and control device operating parameters as specified in paragraphs (k)(1)(i) through (vi) of this section:
- (i) Determine the exidizer destruction efficiency using the procedure in §63.3360(e).
- (ii) Determine the capture system capture efficiency in accordance with §63.3360(f).
- (iii) Capture and control efficiency monitoring. Whenever a web coating line is operated, continuously monitor the operating parameters established in accordance with §63.3350(e) and (f) to ensure capture and control efficiency.
- (iv) If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied, organic HAP emission rate based on coating materials applied, or emission of less than the calculated allowable organic HAP, determine the mass of each coating material applied on the web coating line or group of web coating lines controlled by a common oxidizer during the month.
- (v) If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied, organic HAP emission rate based on coating material applied, or emission of less than the calculated allowable organic HAP, determine the organic HAP content of each coating material as applied during the month following the procedure in §63.3360(c).
- (vi) If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied or emission of less than the calculated allowable organic HAP, determine the coating solids content of each coating material applied during the month following the procedure in §63.3360(d).
- (2) Convert the information obtained under paragraph (p)(1) of this section into the units of the selected compliance option using the calculation procedures specified in paragraphs (k)(2)(i) through (iv) of this section.
- (i) Control efficiency. Calculate the overall organic HAP control efficiency achieved using Equation 11 of this section.
- (ii) Organic HAP emitted. Calculate the organic HAP emitted during the month using Equation 12 of this section.
- (iii) Organic HAP emission rate based on coating solids applied. Calculate the organic HAP emission rate based on coating solids applied for each month using Equation 9 of this section.
- (iv) Organic HAP based on coating materials applied. Calculate the organic HAP emission rate based on coating material applied using Equation 10 of this section.
- (3) You are in compliance with the emission standards in §63.3320(b) if the oxidizer is operated such that the average operating parameter value is greater than the operating parameter value established in accordance with §63.3360(e) for each 3 hour period, and the capture system operating parameter is operated at an average value greater than or less than (as appropriate) the operating parameter value established in accordance with §63.3350(f); and

- (i) The overall organic HAP control efficiency is 95 percent or greater at an existing affected source and 98 percent or greater at a new affected source; or
- (ii) The organic HAP emission rate based on coating solids applied is no more than 0.20 kg organic HAP per kg coating solids applied at an existing affected source and no more than 0.08 kg organic HAP per kg coating solids applied at a new affected source; or
- (iii) The organic HAP emission rate based on coating material applied is no more than 0.04 kg organic HAP per kg coating material applied at an existing affected source and no more than 0.016 kg organic HAP per kg coating material applied at a new affected source; or
- (iv) The organic HAP emitted during the month is less than the calculated allowable organic HAP as determined using paragraph (I) of this section.
- (I) Monthly allowable organic HAP emissions. This paragraph provides the procedures and calculations for determining monthly allowable organic HAP emissions for use in demonstrating compliance in accordance with paragraph (d), (h), (i)(1)(x)(D), (i)(2)(xi)(D), or (k)(3)(iv) of this section. You will need to determine the amount of coating material applied at greater than or equal to 20 mass percent coating solids and the amount of coating material applied at less than 20 mass percent coating solids. The allowable organic HAP limit is then calculated based on coating material applied at greater than or equal to 20 mass percent coating solids complying with 0.2 kg organic HAP per kg coating solids at an existing affected source or 0.08 kg organic HAP per kg coating solids at a new affected source, and coating material applied at less than 20 mass percent coating solids complying with 4 mass percent organic HAP at an existing affected source and 1.6 mass-percent organic HAP at a new affected source as follows:
- (1) Determine the as-purchased mass of each coating material applied each month.
- (2) Determine the as-purchased coating solids content of each coating material applied each month in accordance with §63.3360(d)(1).
- (3) Determine the as-purchased mass fraction of each coating material which was applied at 20 mass percent or greater coating solids content on an as-applied basis.
- (4) Determine the total mass of each solvent, diluent, thinner, or reducer added to coating materials which were applied at less than 20 mass percent coating solids content on an as-applied basis each month.
- (5) Calculate the monthly allowable organic HAP emissions using Equation 13a of this section for an existing affected source:

$$\frac{H_a = 0.20 \left[ \sum_{i=1}^{p} M_i G_i C_{si} \right] + 0.04 \left[ \sum_{i=1}^{p} M_i (1 - G_i) + \sum_{j=1}^{q} M_{L_j} \right]$$
 Eq. 13a

#### Where:

H<sub>a</sub>= Monthly allowable organic HAP emissions, kg.

p = Number of different coating materials applied in a month.

M<sub>i</sub>= mass of as purchased coating material, i, applied in a month, kg.

G<sub>i</sub>= Mass fraction of each coating material, i, which was applied at 20 mass percent or greater coating solids content, on an as-applied basis, kg/kg.

Csi= Coating solids content of coating material, i, expressed as a mass fraction, kg/kg.

q = Number of different materials added to the coating material.

M<sub>Lj</sub>= Mass of non-coating-solids-containing coating material, j, added to coating-solids-containing coating materials which were applied at less than 20 mass percent coating solids content, on an as-applied basis, in a month, kg.

or Equation 13b of this section for a new affected source:

Avery Dennison MFD
Lowell, Indiana
Permit Reviewer: Michael S. Brooks

Page 37 of 49
Significant Permit Modification No. 089-28616-00407

$$\frac{H_{a} = 0.08 \left[\sum_{i=1}^{p} M_{i} G_{i} C_{si}\right] + 0.016 \left[\sum_{i=1}^{p} M_{i} (1 - G_{i}) + \sum_{i=1}^{q} M_{L_{i}}\right] \qquad Eq. \ 13b}{}$$

#### Where:

H<sub>a</sub>= Monthly allowable organic HAP emissions, kg.

p = Number of different coating materials applied in a month.

Mi= Mass of as-purchased coating material, i, applied in a month, kg.

G<sub>i</sub>= Mass fraction of each coating material, i, which was applied at 20 mass percent or greater coating solids content, on an as-applied basis, kg/kg.

Csi= Coating solids content of coating material, i, expressed as a mass fraction, kg/kg.

q = Number of different materials added to the coating material.

M<sub>Lj</sub>= Mass of non-coating-solids-containing coating material, j, added to coating-solids-containing coating materials which were applied at less than 20 mass percent coating solids content, on an as-applied basis, in a month, kg.

#### (m) [Reserved]

- (n) Combinations of capture and control. If you operate more than one capture system, more than one control device, one or more never-controlled work stations, or one or more intermittently-controlled work stations, you must calculate organic HAP emissions according to the procedures in paragraphs (n)(1) through (4) of this section, and use the calculation procedures specified in paragraph (n)(5) of this section to convert the monitoring and other data into units of the selected control option in paragraphs (e) through (h) of this section. Use the procedures specified in paragraph (n)(6) of this section to demonstrate compliance.
- (1) Solvent recovery system using liquid-liquid material balance compliance demonstration. If you choose to comply by means of a liquid-liquid material balance for each solvent recovery system used to control one or more web coating lines, you must determine the organic HAP emissions for those web coating lines controlled by that solvent recovery system either:
- (i) In accordance with paragraphs (i)(1)(i) through (iii) and (v) through (vii) of this section, if the web coating lines controlled by that solvent recovery system have only always controlled work stations; or
- (ii) In accordance with paragraphs (i)(1)(ii), (iii), (v), and (vi) and (o) of this section, if the web coating lines controlled by that solvent recovery system have one or more never-controlled or intermittently-controlled work stations.
- (2) Solvent recovery system using performance test compliance demonstration and CEMS. To demonstrate compliance through an initial test of capture efficiency, continuous monitoring of a capture system operating parameter, and a CEMS on each solvent recovery system used to control one or more web coating lines, you must:
- (i) For each capture system delivering emissions to that solvent recovery system, monitor the operating parameter established in accordance with §63.3350(f) to ensure capture system efficiency; and
- (ii) Determine the organic HAP emissions for those web coating lines served by each capture system delivering emissions to that solvent recovery system either:
- (A) In accordance with paragraphs (i)(2)(i) through (iii), (v), (vi), and (viii) of this section, if the web coating lines served by that capture and control system have only always-controlled work stations; or
- (B) In accordance with paragraphs (i)(2)(i) through (iii), (vi), and (o) of this section, if the web coating lines served by that capture and control system have one or more never-controlled or intermittently-controlled work stations.
- (3) Oxidizer. To demonstrate compliance through performance tests of capture efficiency and control device efficiency, continuous monitoring of capture system, and CPMS for control device operating parameters for each exidizer used to control emissions from one or more web coating lines, you must:
- (i) Monitor the operating parameter in accordance with §63.3350(e) to ensure control device efficiency; and

- (ii) For each capture system delivering emissions to that oxidizer, monitor the operating parameter established in accordance with §63.3350(f) to ensure capture efficiency; and
- (iii) Determine the organic HAP emissions for those web coating lines served by each capture system delivering emissions to that exidizer either:
- (A) In accordance with paragraphs (k)(1)(i) through (vi) of this section, if the web coating lines served by that capture and control system have only always-controlled work stations; or
- (B) In accordance with paragraphs (k)(1)(i) through (iii), (v), and (o) of this section, if the web coating lines served by that capture and control system have one or more never-controlled or intermittently-controlled work stations.
- (4) Uncontrolled coating lines. If you own or operate one or more uncontrolled web coating lines, you must determine the organic HAP applied on those web coating lines using Equation 6 of this section. The organic HAP emitted from an uncontrolled web coating line is equal to the organic HAP applied on that web coating line.
- (5) Convert the information obtained under paragraphs (n)(1) through (4) of this section into the units of the selected compliance option using the calculation procedures specified in paragraphs (n)(5)(i) through (iv) of this section.
- (i) Organic HAP emitted. Calculate the organic HAP emissions for the affected source for the month by summing all organic HAP emissions calculated according to paragraphs (n)(1), (2)(ii), (3)(iii), and (4) of this section.
- (ii) Coating solids applied. If demonstrating compliance on the basis of organic HAP emission rate based on coating solids applied or emission of less than the calculated allowable organic HAP, the owner or operator must determine the coating solids content of each coating material applied during the month following the procedure in §63.3360(d).
- (iii) Organic HAP emission rate based on coating solids applied. Calculate the organic HAP emission rate based on coating solids applied for each month using Equation 9 of this section.
- (iv) Organic HAP based on materials applied. Calculate the organic HAP emission rate based on material applied using Equation 10 of this section.
- (6) Compliance. The affected source is in compliance with the emission standards in §63.3320(b) for the month if all operating parameters required to be monitored under paragraphs (n)(1) through (3) of this section were maintained at the values established under §63.3350 and 63.3360; and
- (i) The total mass of organic HAP emitted by the affected source based on coating solids applied is no more than 0.20 kg organic HAP per kg coating solids applied at an existing affected source and no more than 0.08 kg organic HAP per kg coating solids applied at a new affected source; or
- (ii) The total mass of organic HAP emitted by the affected source based on material applied is no more than 0.04 kg organic HAP per kg material applied at an existing affected source and no more than 0.016 kg organic HAP per kg material applied at a new affected source; or
- (iii) The total mass of organic HAP emitted by the affected source during the month is less than the calculated allowable organic HAP as determined using paragraph (I) of this section; or
- (iv) The total mass of organic HAP emitted by the affected source was not more than 5 percent of the total mass of organic HAP applied for the month at an existing affected source and no more than 2 percent of the total mass of organic HAP applied for the month at a new affected source. The total mass of organic HAP applied by the affected source in the month must be determined using Equation 6 of this section.
- (o) Intermittently-controlled and never-controlled work stations. If you have been expressly referenced to this paragraph by paragraphs (n)(1)(ii), (n)(2)(ii)(B), or (n)(3)(iii)(B) of this section for calculation procedures to determine organic HAP emissions for your intermittently-controlled and never-controlled work stations, you must:
- (1) Determine the sum of the mass of all coating materials as applied on intermittently-controlled work stations operating in bypass mode and the mass of all coating materials as-applied on never-controlled work stations during the month.
- (2) Determine the sum of the mass of all coating materials as-applied on intermittently-controlled work stations operating in a controlled mode and the mass of all coating materials applied on always-controlled work stations during the month.

(3) Liquid-liquid material balance compliance demonstration. For each web coating line or group of web coating lines for which you use the provisions of paragraph (n)(1)(ii) of this section, you must calculate the organic HAP emitted during the month using Equation 14 of this section:

$$\frac{\mathbf{H}_{e} = \left[\sum_{i=1}^{p} \mathbf{M}_{Ci} \mathbf{C}_{aba}\right] \left[1 - \frac{\mathbf{R}_{v}}{100}\right] + \left[\sum_{i=1}^{p} \mathbf{M}_{Bi} \mathbf{C}_{aba}\right] - \mathbf{M}_{vret}$$
 Eq. 14

Where:

H<sub>e</sub>= Total monthly organic HAP emitted, kg.

p = Number of different coating materials applied in a month.

M<sub>ei</sub>= Sum of the mass of coating material, i, as-applied on intermittently-controlled work stations operating in controlled mode and the mass of coating material, i, as-applied on always-controlled work stations, in a month, kg.

G<sub>ahi</sub>= Monthly average, as-applied, organic HAP content of coating material, i, expressed as a mass fraction, kg/kg.

R<sub>v</sub>= Organic volatile matter collection and recovery efficiency, percent.

M<sub>Bi</sub>= Sum of the mass of coating material, i, as applied on intermittently-controlled work stations operating in bypass mode and the mass of coating material, i, as-applied on never-controlled work stations, in a month, kg.

G<sub>ahi</sub>= Monthly average, as-applied, organic HAP content of coating material, i, expressed as a mass fraction, kg/kg.

M<sub>vret</sub>= Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg. The value of this term will be zero in all cases except where you choose to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in this section.

(4) Performance test to determine capture efficiency and control device efficiency. For each web coating line or group of web coating lines for which you use the provisions of paragraph (n)(2)(ii)(B) or (n)(3)(iii)(B) of this section, you must calculate the organic HAP emitted during the month using Equation 15 of this section:

$$\frac{\mathbf{H_e} = \left[\sum_{i=1}^{p} \mathbf{M_{Ci}C_{abd}}\right] \left[1 - \frac{\mathbf{R}}{100}\right] + \left[\sum_{i=1}^{p} \mathbf{M_{Bi}C_{abi}}\right] - \mathbf{M_{wret}} \qquad Eq. \ 15}{}$$

Where:

H<sub>e</sub>= Total monthly organic HAP emitted, kg.

p = Number of different coating materials applied in a month.

M<sub>ci</sub>= Sum of the mass of coating material, i, as-applied on intermittently-controlled work stations operating in controlled mode and the mass of coating material, i, as-applied on always-controlled work stations, in a month, kg.

G<sub>ahi</sub>= Monthly average, as-applied, organic HAP content of coating material, i, expressed as a mass fraction, kg/kg.

R = Overall organic HAP control efficiency, percent.

M<sub>Bi</sub>= Sum of the mass of coating material, i, as-applied on intermittently-controlled work stations operating in bypass mode and the mass of coating material, i, as-applied on never-controlled work stations, in a month, kg.

Avery Dennison MFD

Page 40 of 49

Lowell, Indiana

Significant Permit Modification No. 089-28616-00407

Permit Reviewer: Michael S. Brooks

G<sub>ahi</sub>= Monthly average, as applied, organic HAP content of coating material, i, expressed as a mass fraction, kg/kg.

M<sub>vret</sub>= Mass of volatile matter retained in the coated web after curing or drying, or otherwise not emitted to the atmosphere, kg. The value of this term will be zero in all cases except where you choose to take into account the volatile matter retained in the coated web or otherwise not emitted to the atmosphere for the compliance demonstration procedures in this section.

- (p) Always-controlled work stations with more than one capture and control system. If you operate more than one capture system or more than one control device and only have always-controlled work stations, then you are in compliance with the emission standards in §63.3320(b)(1) for the month if for each web coating line or group of web coating lines controlled by a common control device:
- (1) The volatile matter collection and recovery efficiency as determined by paragraphs (i)(1)(i), (iii), (v), and (vi) of this section is at least 95 percent at an existing affected source and at least 98 percent at a new affected source; or
- (2) The overall organic HAP control efficiency as determined by paragraphs (i)(2)(i) through (iv) of this section for each web coating line or group of web coating lines served by that control device and a common capture system is at least 95 percent at an existing affected source and at least 98 percent at a new affected source; or
- (3) The overall organic HAP control efficiency as determined by paragraphs (k)(1)(i) through (iii) and (k)(2)(i) of this section for each web coating line or group of web coating lines served by that control device and a common capture system is at least 95 percent at an existing affected source and at least 98 percent at a new affected source.

#### Notifications, Reports, and Records

#### § 63.3400 What notifications and reports must I submit?

- (a) Each owner or operator of an affected source subject to this subpart must submit the reports specified in paragraphs (b) through (g) of this section to the Administrator:
- (b) You must submit an initial notification as required by §63.9(b).
- (1) Initial notification for existing affected sources must be submitted no later than 1 year before the compliance date specified in §63.3330(a).
- (2) Initial notification for new and reconstructed affected sources must be submitted as required by §63.9(b).
- (3) For the purpose of this subpart, a title V or part 70 permit application may be used in lieu of the initial notification required under §63.9(b), provided the same information is contained in the permit application as required by §63.9(b) and the State to which the permit application has been submitted has an approved operating permit program under part 70 of this chapter and has received delegation of authority from the EPA to implement and enforce this subpart.
- (4) If you are using a permit application in lieu of an initial notification in accordance with paragraph (b)(3) of this section, the permit application must be submitted by the same due date specified for the initial notification.
- (e) You must submit a semiannual compliance report according to paragraphs (e)(1) and (2) of this section.
- (1) Compliance report dates.
- (i) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.3330 and ending on June 30 or December 31, whichever date is the first date following the end of the calendar half immediately following the compliance date that is specified for your affected source in §63.3330.
- (ii) The first compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the calendar half immediately following the compliance date that is specified for your affected source in §63.3330.
- (iii) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.
- (iv) Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.
- (v) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and the permitting authority has established dates for submitting semiannual reports pursuant to §70.6(a)(3)(iii)(A) or

- §71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (e)(1)(i) through (iv) of this section.
- (2) The compliance report must contain the information in paragraphs (c)(2)(i) through (vi) of this section:
- (i) Company name and address.
- (ii) Statement by a responsible official with that official's name, title, and signature certifying the accuracy of the content of the report.
- (iii) Date of report and beginning and ending dates of the reporting period.
- (iv) If there are no deviations from any emission limitations (emission limit or operating limit) that apply to you, a statement that there were no deviations from the emission limitations during the reporting period, and that no CMS was inoperative, inactive, malfunctioning, out-of-control, repaired, or adjusted.
- (v) For each deviation from an emission limitation (emission limit or operating limit) that applies to you and that occurs at an affected source where you are not using a CEMS to comply with the emission limitations in this subpart, the compliance report must contain the information in paragraphs (c)(2)(i) through (iii) of this section, and:
- (A) The total operating time of each affected source during the reporting period.
- (B) Information on the number, duration, and cause of deviations (including unknown cause), if applicable, and the corrective action taken.
- (C) Information on the number, duration, and cause for CPMS downtime incidents, if applicable, other than downtime associated with zero and span and other calibration checks.
- (vi) For each deviation from an emission limit occurring at an affected source where you are using a CEMS to comply with the emission limit in this subpart, you must include the information in paragraphs (c)(2)(i) through (iii) and (vi)(A) through (J) of this section.
- (A) The date and time that each malfunction started and stopped.
- (B) The date and time that each CEMS and CPMS, if applicable, was inoperative except for zero (low-level) and high-level checks.
- (C) The date and time that each CEMS and CPMS, if applicable, was out-of-control, including the information in §63.8(c)(8).
- (D) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.
- (E) A summary of the total duration (in hours) of each deviation during the reporting period and the total duration of each deviation as a percent of the total source operating time during that reporting period.
- (F) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.
- (G) A summary of the total duration (in hours) of CEMS and CPMS downtime during the reporting period and the total duration of CEMS and CPMS downtime as a percent of the total source operating time during that reporting period.
- (H) A breakdown of the total duration of CEMS and CPMS downtime during the reporting period into periods that are due to monitoring equipment malfunctions, nonmonitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and other unknown causes.
- (I) The date of the latest CEMS and CPMS certification or audit.
- (J) A description of any changes in CEMS, CPMS, or controls since the last reporting period.
- (d) You must submit a Notification of Performance Tests as specified in §§63.7 and 63.9(e) if you are complying with the emission standard using a control device and you are required to conduct a performance test of the control device. This notification and the site specific test plan required under §63.7(c)(2) must identify the operating parameters to be monitored to ensure that the capture efficiency of the capture system and the control efficiency of the control device determined during the performance test are maintained. Unless EPA objects to the parameter or requests changes, you may consider the parameter approved.

- (e) You must submit a Notification of Compliance Status as specified in §63.9(h).
- (f) You must submit performance test reports as specified in §63.10(d)(2) if you are using a control device to comply with the emission standard and you have not obtained a waiver from the performance test requirement or you are not exempted from this requirement by §63.3360(b). The performance test reports must be submitted as part of the notification of compliance status required in §63.3400(e).
- (g) You must submit startup, shutdown, and malfunction reports as specified in §63.10(d)(5), except that the provisions in subpart A of this part pertaining to startups, shutdowns, and malfunctions do not apply unless a control device is used to comply with this subpart.
- (1) If actions taken by an owner or operator during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are not consistent with the procedures specified in the affected source's SSMP required by §63.6(e)(3), the owner or operator must state such information in the report. The startup, shutdown, or malfunction report must consist of a letter containing the name, title, and signature of the responsible official who is certifying its accuracy and must be submitted to the Administrator.
- (2) Separate startup, shutdown, and malfunction reports are not required if the information is included in the report specified in paragraph (c)(2)(vi) of this section.

#### § 63.3410 What records must I keep?

- (a) Each owner or operator of an affected source subject to this subpart must maintain the records specified in paragraphs (a)(1) and (2) of this section on a monthly basis in accordance with the requirements of §63.10(b)(1):
- (1) Records specified in §63.10(b)(2) of all measurements needed to demonstrate compliance with this standard, including:
- (i) Continuous emission monitor data in accordance with the requirements of §63.3350(d);
- (ii) Control device and capture system operating parameter data in accordance with the requirements of §63.3350(c), (e), and (f);
- (iii) Organic HAP content data for the purpose of demonstrating compliance in accordance with the requirements of §63.3360(c):
- (iv) Volatile matter and coating solids content data for the purpose of demonstrating compliance in accordance with the requirements of §63.3360(d);
- (v) Overall control efficiency determination using capture efficiency and control device destruction or removal efficiency test results in accordance with the requirements of §63.3360(e) and (f); and
- (vi) Material usage, organic HAP usage, volatile matter usage, and coating solids usage and compliance demonstrations using these data in accordance with the requirements of §63.3370(b), (c), and (d).
- (2) Records specified in §63.10(c) for each CMS operated by the owner or operator in accordance with the requirements of §63.3350(b).
- (b) Each owner or operator of an affected source subject to this subpart must maintain records of all liquid-liquid material balances performed in accordance with the requirements of §63.3370. The records must be maintained in accordance with the requirements of §63.10(b).

#### Delegation of Authority

the following table:

#### § 63.3420 What authorities may be delegated to the States?

- (a) In delegating implementation and enforcement authority to a State under 40 CFR part 63, subpart E, the authorities contained in paragraph (b) of this section must be retained by the Administrator and not transferred to a State.
- (b) Authority which will not be delegated to States: §63.3360(c), approval of alternate test method for organic HAP content determination; §63.3360(d), approval of alternate test method for volatile matter determination.
- Table 1 to Subpart JJJJ of Part 63—Operating Limits if Using Add-On Control Devices and Capture System

  If you are required to comply with operating limits by §63.3321, you must comply with the applicable operating limits in

For the following device:	You must meet the following operating limit:	And you must demonstrate continuous compliance with operating limits by:
1. Thermal oxidizer	a. The average combustion temperature in any 3-hour period must not fall below the combustion temperature limit established according to §63.3360(e)(3)(i)	i. Collecting the combustion temperature data according to §63.3350(e)(9); ii. Reducing the data to 3 hour block averages; and iii. Maintain the 3-hour average combustion temperature at or above the temperature limit.
2. Catalytic oxidizer	a. The average temperature at the inlet to the catalyst bed in any 3-hour period must not fall below the combustion temperature limit established according to §63.3360(e)(3)(ii)	i. Collecting the catalyst bed inlet temperature data according to \$63.3350(e)(9); ii. Reducing the data to 3-hour block averages; and iii. Maintain the 3-hour average catalyst bed inlet temperature at or above the temperature limit.
	b. The temperature rise across the catalyst bed must not fall below the limit established according to \$63.3360(e)(3)(ii)	i. Collecting the catalyst bed inlet and outlet temperature data according to §63.3350(e)(9); ii. Reducing the data to 3-hour block averages; and iii. Maintain the 3-hour average temperature rise across the catalyst bed at or above the limit.
3. Emission capture system	Submit monitoring plan to the Administrator that identifies operating parameters to be monitored according to §63.3350(f)	Conduct monitoring according to the plan (§63.3350(f)(3)).

Table 2 to Subpart JJJJ of Part 63—Applicability of 40 CFR Part 63 General Provisions to Subpart JJJJ

You must comply with the applicable General Provisions requirements according to the following table:

General provisions reference	Applicable to subpart JJJJ	<b>Explanation</b>
<del>§63.1(a)(1)–(4)</del>	<del>Yes.</del>	
<del>§63.1(a)(5)</del>	No	Reserved.
<del>§63.1(a)(6)–(8)</del>	<del>Yes.</del>	
<del>§63.1(a)(9)</del>	No	Reserved.
<del>§63.1(a)(10)–(14)</del>	<del>Yes.</del>	
<del>§63.1(b)(1)</del>	No	Subpart JJJJ specifies applicability.
<del>§63.1(b)(2)–(3)</del>	<del>Yes.</del>	
<del>§63.1(c)(1)</del>	<del>Yes.</del>	
<del>§63.1(c)(2)</del>		Area sources are not subject to emission standards of subpart JJJJ.

<del>§63.1(c)(3)</del>	No	Reserved.
<del>§63.1(c)(4)</del>	<del>Yes.</del>	
<del>§63.1(c)(5)</del>	<del>Yes.</del>	
<del>§63.1(d)</del>	No	Reserved.
<del>§63.1(e)</del>	<del>Yes.</del>	
<del>§63.1(e)(4)</del>	No.	
<del>§63.2</del>	Yes	Additional definitions in subpart JJJJ.
<del>§63.3(a)–(c)</del>	<del>Yes.</del>	
<del>§63.4(a)(1)–(3)</del>	<del>Yes.</del>	
<del>§63.4(a)(4)</del>	No	Reserved.
<del>§63.4(a)(5)</del>	<del>Yes.</del>	
<del>§63.4(b) (c)</del>	<del>Yes.</del>	
<del>§63.5(a)(1)–(2)</del>	Yes.	
<del>§63.5(b)(1)</del>	<del>Yes.</del>	
<del>§63.5(b)(2)</del>	No	Reserved.
<del>§63.5(b)(3)–(6)</del>	<del>Yes.</del>	
<del>§63.5(c)</del>	No	Reserved.
<del>§63.5(d)</del>	<del>Yes.</del>	
<del>§63.5(e)</del>	<del>Yes.</del>	
<del>§63.5(f)</del>	<del>Yes.</del>	
<del>§63.6(a)</del>	Yes	Applies only when capture and control system is used to comply with the standard.
<del>§63.6(b)(1)–(5)</del>	No	
<del>§63.6(b)(6)</del>	No	Reserved.
<del>§63.6(b)(7)</del>	<del>Yes.</del>	
<del>§63.6(c)(1) (2)</del>	<del>Yes.</del>	
<del>§63.6(c)(3)–(4)</del>	No	Reserved.
<del>§63.6(c)(5)</del>	<del>Yes.</del>	
<del>§63.6(d)</del>	No	Reserved.
<del>§63.6(e)</del>	Yes	Provisions pertaining to SSMP, and CMS do not apply unless an add-on control system is used to comply with the emission limitations.

<del>§63.6(f)</del>	<del>Yes.</del>	
<del>§63.6(g)</del>	Yes.	
<del>§63.6(h)</del>	No	Subpart JJJJ does not require continuous opacity monitoring systems (COMS).
<del>§63.6(i)(1)–(14)</del>	<del>Yes.</del>	
<del>§63.6(i)(15)</del>	No	Reserved.
<del>§63.6(i)(16)</del>	<del>Yes.</del>	
<del>§63.6(j)</del>	<del>Yes.</del>	
<del>§63.7</del>	<del>Yes.</del>	
<del>§63.8(a)(1)–(2)</del>	<del>Yes.</del>	
<del>§63.8(a)(3)</del>	No	Reserved.
<del>§63.8(a)(4)</del>	No.	
<del>§63.8(b)</del>	Yes.	
<del>§63.8(c)(1)–(3)</del>	Yes	§63.8(c)(1)(i) & (ii) only apply if you use capture and control systems and are required to have a start-up, shutdown, and malfunction plan.
<del>§63.8(c)(4)</del>	Yes.	
<del>§63.8(c)(5)</del>	No	Subpart JJJJ does not require COMS.
§63.8(c)(6) (c)(8)	Yes	Provisions for COMS are not applicable.
<del>§63.8(d)–(f)</del>	Yes	§63.8(f)(6) only applies if you use CEMS.
<del>§63.8(g)</del>	Yes	Only applies if you use CEMS.
<del>§63.9(a)</del>	<del>Yes.</del>	
<del>§63.9(b)(1)</del>	<del>Yes.</del>	
<del>§63.9(b)(2)</del>	Yes	Except §63.3400(b)(1) requires submittal of initial notification for existing affected sources no later than 1 year before compliance date.
<del>§63.9(b)(3) (5)</del>	Yes.	
<del>§63.9(c)–(e)</del>	<del>Yes.</del>	
<del>§63.9(f)</del>	No	Subpart JJJJ does not require opacity and visible emissions observations.
<del>§63.9(g)</del>	Yes	Provisions for COMS are not applicable.
<del>§63.9(h)(1)–(3)</del>	<del>Yes.</del>	
<del>§63.9(h)(4)</del>	No	Reserved.
<del>§63.9(h)(5)–(6)</del>	<del>Yes.</del>	

<del>§63.9(i)</del>	<del>Yes.</del>	
<del>§63.9(j)</del>	<del>Yes.</del>	
<del>§63.10(a)</del>	<del>Yes.</del>	
<del>§63.10(b)(1) (3)</del>	Yes	§63.10(b)(2)(i) through (v) only apply if you use a capture and control system.
<del>§63.10(c)(1)</del>	<del>Yes.</del>	
<del>§63.10(c)(2)–(4)</del>	No	Reserved.
<del>§63.10(c)(5) (8)</del>	<del>Yes.</del>	
<del>§63.10(c)(9)</del>	No	Reserved.
<del>§63.10(c)(10) (15)</del>	<del>Yes.</del>	
§63.10(d)(1)-(2)	<del>Yes.</del>	
<del>§63.10(d)(3)</del>	No	Subpart JJJ does not require opacity and visible emissions observations.
§63.10(d)(4)–(5)	<del>Yes.</del>	
<del>§63.10(e)(1)–(2)</del>	Yes	Provisions for COMS are not applicable.
<del>§63.10(e)(3)–(4)</del>	<del>No.</del>	
<del>§63.10(f)</del>	<del>Yes.</del>	
<del>§63.11</del>	No.	
<del>§63.12</del>	Yes.	
<del>§63.13</del>	Yes.	
<del>§63.14</del>	Yes	Subpart JJJJ includes provisions for alternative ASME test methods that are incorporated by reference.
<del>§63.15</del>	<del>Yes.</del>	

# SECTION E.1

#### **FACILITY OPERATION CONDITIONS**

#### Facility Description [326 IAC 2-7-5(15)]

- (a) One (1) pressure-sensitive vinyl casting/rollcoating line; constructed on July 1, 1980; identified as L-1; with a maximum capacity of 24,750 square feet per hour; using a 20 MMBtu/hr natural gas-fired thermal oxidizer, identified as C-1, for VOC control; exhausting to stack S-1, utilizing a 6.9 MMBtu/hr natural gas fired thermal oxidizer used for backup VOC control, exhausting to stack TOS-1. Under 40 CFR Part 63, Subpart JJJJ, L-1 is considered an existing web coating line.
- (b) One (1) pressure-sensitive vinyl casting/rollcoating line, constructed on December 1, 1984; and one (1) surface coating head (CH-1), constructed in 2001; identified together as L-2; with a maximum capacity of 23,063 square feet per hour; using a 20 MMBtu/hr natural gasfired thermal oxidizer, identified as C-1, for VOC control; exhausting to stack S-1, utilizing a

- 9.8 MMBtu/hr natural gas fired thermal oxidizer used for backup VOC control, exhausting to stack TOS-2. Under 40 CFR Part 63, Subpart JJJJ, L-2 is considered an existing web coating line. Under 40 CFR Part 60, Subpart RR, L-2 is considered an affected source.
- (c) One (1) pressure-sensitive vinyl adhesive rollcoating line; constructed on June 1, 1988; identified as L-3; with a maximum capacity of 30,750 square feet per hour; using a 20 MMBtu/hr natural gas-fired thermal oxidizer, identified as C-1, for VOC control (except when using an emulsion coating); exhausting to stack S-1. Under 40 CFR Part 63, Subpart JJJJ, L-3 is considered an existing web coating line. Under 40 CFR Part 60, Subpart RR, L-3 is considered an affected source.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

#### E.1.1 General Provisions Relating to NESHAP Subpart JJJJ [40 CFR Part 63, Subpart A]

Pursuant to 40 CFR 63.3340, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-1, as specified in Table 2 of 40 CFR Part 63, Subpart JJJJ in accordance with schedule in 40 CFR 63 Subpart JJJJ.

#### E.1.2 Paper and other Web Coating NESHAP [40 CFR Part 63, Subpart JJJJ]

The Permittee which engages in paper and other web coating shall comply with the following provisions of 40 CFR Part 63, Subpart JJJJ (included as Attachment A of this permit).

- (1) 40 CFR 63.3280;
- (2) 40 CFR 63.3290;
- (3) 40 CFR 63.3300;
- (4) 40 CFR 63.3310;
- (5) 40 CFR 63.3320(a), (b)(1), (2) and (3) and (c);
- (6) 40 CFR 63.3321;
- (7) 40 CFR 63.3330(a);
- (8) 40 CFR 63.3340;
- (9) 40 CFR 63.3350;
- (10) 40 CFR 63.3360(a), (c), (d), and (e);
- (11) 40 CFR 63.3370(a), (b) and (c)(1) through (5);
- (12) 40 CFR 63.3400(a), (b)(1), c(1)(i) through (v), (2)(i) through (v) and (e);
- (13) 40 CFR 63.3410(a)(1)(iii), (iv) and (vi);
- (14) Table 1; and
- (15) Table 2.

#### **SECTION E.2**

#### **FACILITY OPERATION CONDITIONS**

## Facility Description [326 IAC 2-7-5(15)]

- (a) One (1) pressure-sensitive vinyl casting/rollcoating line; constructed on July 1, 1980; identified as L-1; with a maximum capacity of 24,750 square feet per hour; using a 20 MMBtu/hr natural gas-fired thermal oxidizer, identified as C-1, for VOC control; exhausting to stack S-1, utilizing a 6.9 MMBtu/hr natural gas fired thermal oxidizer used for backup VOC control, exhausting to stack TOS-1. Under 40 CFR Part 63, Subpart JJJJ, L-1 is considered an existing web coating line.
- (b) One (1) pressure-sensitive vinyl casting/rollcoating line, constructed on December 1, 1984; and one (1) surface coating head (CH-1), constructed in 2001; identified together as L-2; with a maximum capacity of 23,063 square feet per hour; using a 20 MMBtu/hr natural gasfired thermal oxidizer, identified as C-1, for VOC control; exhausting to stack S-1, utilizing a 9.8 MMBtu/hr natural gas fired thermal oxidizer used for backup VOC control, exhausting to stack TOS-2. Under 40 CFR Part 63, Subpart JJJJ, L-2 is considered an existing web coating line. Under 40 CFR Part 60, Subpart RR, L-2 is considered an affected source.
- (c) One (1) pressure-sensitive vinyl adhesive rollcoating line; constructed on June 1, 1988; identified as L-3; with a maximum capacity of 30,750 square feet per hour; using a 20 MMBtu/hr natural gas-fired thermal oxidizer, identified as C-1, for VOC control (except when using an emulsion coating); exhausting to stack S-1. Under 40 CFR Part 63, Subpart JJJJ, L-3 is considered an existing web coating line. Under 40 CFR Part 60, Subpart RR, L-3 is considered an affected source.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

## E.2.1 General Provisions Relating to NSPS Subpart RR [40 CFR Part 60, Subpart A]

Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12, except as otherwise specified in 40 CFR Part 60, Subpart RR.

E.2.2 Standards of Performance for Pressure Sensitive Tape and Label Materials Coating Operation NSPS [40 CFR Part 60, Subpart RR] [326 IAC 12]

The Permittee which engages in pressure sensitive tape and label materials coating shall comply with the following provisions of 40 CFR Part 60, Subpart RR, (included as Attachment B of this permit).

- (1) 40 CFR 60.440;
- (2) 40 CFR 60.441;
- (3) 40 CFR 60.442;
- (4) 40 CFR 60.443;
- (5) 40 CFR 60.444;
- (6) 40 CFR 60.445;
- (7) 40 CFR 60.446; and
- (8) 40 CFR 60.447.

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#### IDEM Change #2:

Several of IDEM's Branches and Sections have been renamed. Therefore, IDEM has updated the addresses listed in the permit. References to Permit Administration and Development Section and the Permits Branch have been changed to Permit Administration and Support Section. References to Asbestos Section, Compliance Data Section, Air Compliance Section, and Compliance Branch have been changed to Compliance and Enforcement Branch.

Page 49 of 49 Significant Permit Modification No. 089-28616-00407

Avery Dennison MFD Lowell, Indiana Permit Reviewer: Michael S. Brooks

## **Conclusion and Recommendation**

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Permit Modification. The staff recommends to the Commissioner that this Part 70 Significant Permit Modification be approved.

# Appendix A: Emissions Calculations Natural Gas Combustion Only MM BTU/HR <100

Company Name: Avery Dennison MFD

Address City IN Zip: 270 West Meadow Place, Lowell, IN 46356

Permit Number: 089-28616-00407 Reviewer: Michael S. Brooks

Date: 11/12/2009

Heat Input Capacity
MMBtu/hr

Potential Throughput MMCF/yr

16.7

146.3

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100	5.5	84
				**see below		
Potential Emission in tons/yr	0.1	0.6	0.0	7.3	0.4	6.1

<sup>\*</sup>PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

#### Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 2 for HAPs emissions calculations.

<sup>\*\*</sup>Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

# Appendix A: Emissions Calculations Natural Gas Combustion Only MM BTU/HR <100 HAPs Emissions

Company Name: Avery Dennison MFD

Address City IN Zip: 270 West Meadow Place, Lowell, IN 46356

Permit Number: 089-28616-00407 Reviewer: Michael S. Brooks

Date: 11/12/2009

	HAPs - Organics						
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03		
Potential Emission in tons/yr	1.536E-04	8.778E-05	5.486E-03	1.317E-01	2.487E-04		

	HAPs - Metals								
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03				
Potential Emission in tons/yr	3.657E-05	8.046E-05	1.024E-04	2.780E-05	1.536E-04				

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above. Additional HAPs emission factors are available in AP-42, Chapter 1.4.



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr. Governor

Thomas W. Easterly Commissioner

100 North Senate Avenue Indianapolis, Indiana 46204 (317) 232-8603 Toll Free (800) 451-6027 www.idem.IN.gov

#### SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: Darin Clark

Avery Dennison

270 West Meadow Place Lowell, Indiana 46356

DATE: May 13, 2010

FROM: Matt Stuckey, Branch Chief

> Permits Branch Office of Air Quality

SUBJECT: Final Decision

Title V

089-28616-00407

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

A copy of the final decision and supporting materials has also been sent via standard mail to: OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at jbrush@idem.IN.gov.

Final Applicant Cover letter.dot 11/30/07







We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr. Governor

Thomas W. Easterly Commissioner

100 North Senate Avenue Indianapolis, Indiana 46204 (317) 232-8603 Toll Free (800) 451-6027 www.idem.IN.gov

May 13, 2010

TO: Lowell Public Library

From: Matthew Stuckey, Branch Chief

> Permits Branch Office of Air Quality

Subject: Important Information for Display Regarding a Final Determination

> **Avery Dennison Applicant Name: Permit Number:** 169-28616-00407

You previously received information to make available to the public during the public comment period of a draft permit. Enclosed is a copy of the final decision and supporting materials for the same project. Please place the enclosed information along with the information you previously received. To ensure that your patrons have ample opportunity to review the enclosed permit, we ask that you retain this document for at least 60 days.

The applicant is responsible for placing a copy of the application in your library. If the permit application is not on file, or if you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185.

> Enclosures Final Library.dot 11/30/07



# Mail Code 61-53

IDEM Staff	CDENNY 5/13/2	010		
	Avery Dennison	089-28616-00407 (final)	AFFIX STAMP	
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											Remarks
1		Darin Clark Avery Dennison 270 W Meadow Place Lowell IN 46356 (Source CAATS)									
2		Bobo Rotella VP, Supply Chain & Ops Mentor Avery Dennison 8080 Norton Pkwy, Blo	g 22 Mentor	OH 44060 (I	RO CAATS)						
3		Gary - Hobart Water Corp 650 Madison St, P.O. Box M486 Gary IN 46401-0486 (A	fected Party)	)							
4		Lake County Health Department-Gary 1145 W. 5th Ave Gary IN 46402-1795 (Health	n Department	t)							
5		WJOB / WZVN Radio 6405 Olcott Ave Hammond IN 46320 (Affected Party)									
6		Laurence A. McHugh Barnes & Thornburg 100 North Michigan South Bend IN 46601-1632 (Affected Party)									
7		Lowell Public Library 1505 East Commercial Lowell IN 46356 (Library)									
8		Lowell Town Council and Town Manager PO Box 157, 501 East Main Street Lowell II	N 46356 <i>(La</i>	ocal Official)							
9		Shawn Sobocinski 3229 E. Atlanta Court Portage IN 46368 (Affected Party)									
10		Ms. Carolyn Marsh Lake Michigan Calumet Advisory Council 1804 Oliver St Whiting IN 46394-1725 (Affected Party)									
11		Mark Coleman 9 Locust Place Ogden Dunes IN 46368 (Affected Party)									
12		Mr. Chris Hernandez Pipefitters Association, Local Union 597 8762 Louisiana St., Suite G Merrillville IN 46410 (Affected Party)									
13		Craig Hogarth 7901 West Morris Street Indianapolis IN 46231 (Affected Party)									
14		Lake County Commissioners 2293 N. Main St, Building A 3rd Floor Crown Point IN 46307 (Local Official)									
15		Anthony Copeland 2006 E. 140th Street East Chicago IN 46312 (Affected Party)									

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	Avery Dennison	089-28616-00407 (final)	AFFIX STAMP	
Name and		Indiana Department of Environmental	Type of Mail:	HERE IF
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											Remarks
1		Barbara G. 506 Lilac Street East Chicago IN 46312 (Affected Party)									
2		Mr. Robert Garcia 3733 Parrish Avenue East Chicago IN 46312 (Affected Party)									
3		Mrs. Kathy Moore KERAMIDA Environmental, Inc. 401 North College Indianapolis IN 46202 (Consultant)									
4		Ms. Karen Kroczek 8212 Madison Ave Munster IN 46321-1627 (Affected Party)									
5		Calumet Township Trustee 31 E 5th Avenue Gary IN 46402 (Affected Party)									
6		Joseph Hero 11723 S Oakridge Drive St. John IN 46373 (Affected Party)									
7		Gary City Council 401 Broadway # 209 Gary IN 46402 (Local Official)									
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